EXHIBIT A

Invalidity Charts for U.S. Patent No. 6,210,293

NESBITT INCORPORATING MOLITOR '637
(OR ALTERNATIVELY IN COMBINATION WITH MOLITOR '637)

Claim 1	**Nesbitt and Molitor '637**
A golf ball comprising:	"The disclosure embraces **a golf ball** and method of making same …." (Nesbitt (Ex. 10), Abstract; FIGS 1 & 2.)
a core;	"Referring to the drawings in detail there is illustrated a golf ball 10 which comprises a **solid center or core** formed as a solid body of resilient polymeric material or rubber-like material in the shape of a sphere." (Nesbitt (Ex. 10), col. 2, lines 31-34.)
an inner cover layer having …	"Disposed on the spherical center or core 12 is a first layer, lamination, ply or **inner cover 14** of molded hard, highly flexural modulus resinous material…." (Nesbitt (Ex. 10), col. 2, lines 34-37.)
a Shore D hardness of 60 or more molded on said core,	**Nesbitt**: "[I]nner cover 14 of molded **hard**, high flexural modulus resinous material such as **type 1605 Surlyn® marketed by E.I DuPont de Nemours**." (Nesbitt (Ex. 10), col. 2, lines 36-38.) **Per the '293 Patent**: "Type 1605 Surlyn® (now designated Surlyn® 8940)." ('293 patent (Ex. 1), col. 2, lines 54-55.) **OFF THE BALL** **DuPont Surlyn® Product Information**: Surlyn® 8940 (formerly Surlyn® 1605) has a Shore D hardness of 66. ('293 patent (Ex. 1), Table 1.) **Nesbitt Incorporates the Materials of Molitor '637 by Reference**: Molitor '637 discloses a blend of two ionomers which has a Shore D hardness of 64.3 when measured "off the ball." (*See* "Blend 3" AC 0131414 (Ex. 34).) **ON THE BALL** Measurements of Surlyns made "on the ball" are higher than plaque measurements and would also be above 60. *See* (Nesbitt Depo. Trans. at 244:12—244:17 (Ex. 16).) **Nesbitt Incorporates the Materials of Molitor '637 by Reference**: Molitor '637 discloses a blend of two ionomers (*See* Molitor '637 (Ex. 12), Table 1.) Measurements of Surlyns made "on the ball" are higher than plaque measurements and would also be above 60. (*See* Nesbitt Depo. Trans. at 244:12—244:17 (Ex. 16).)

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Claim 1	**Nesbitt and Molitor '637**
said inner cover layer having a thickness of 0.100 to 0.010 inches,	"It is found that the inner layer of hard, high flexural modulus resinous material such as Surlyn® resin type 1605, is preferably of a thickness in a range of 0.020 inches and 0.070 inches." (Nesbitt (Ex. 10), col. 3, lines 19-23.)
said inner cover layer comprising a blend of two or more low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid; and	**Nesbitt Incorporates the Materials of Molitor '637 by Reference**: "Reference is made to the application Ser. No. 155,658 of **Robert P. Molitor issued into U.S. Pat. No. 4,274,637** which describes a number of foamable compositions of a character which may be employed for … layers 14 … for the golf ball of this invention." (Nesbitt (Ex. 10), col. 3, lines 54-60.) **Molitor '637**: Molitor teaches, in examples 1-7, cover materials including a blend of two ionomer resins: Surlyn 1605 and Surlyn 1557. (Molitor '637 (Ex. 12), col. 14, line 22 to col. 16, line 34.) Type 1605 Surlyn® is now designated Surlyn® 8940. ('293 patent, col. 2, lines 54-55.) It has about 15% acid. ('293 patent, col. 2, lines 55-57.) Type 1557 Surlyn is now designated Surlyn 9650. (DUP 000038 (Ex. 36).) It has an acid content of about 11%. (DUP 000132 (Ex. 37).) Callaway admits that Nesbitt teaches the use of the ionomer blend found in Molitor '637 in a multi-layer golf ball. (*See* Response to Office Action Mailed February 27, 2007 in Reexam. Cont. No. 95/000,120 (Ex. 28) at 16.)
an outer cover layer having …	"An **outer layer, ply, lamination or cover 16** … is then remolded onto the inner ply or layer 14…." (Nesbitt (Ex. 10), col. 2, lines 43-47.)
a Shore D hardness of 64 or less molded on said inner cover layer,	**OFF THE BALL** **Nesbitt:** Nesbitt teaches an outer cover layer made of Surlyn® 1855, now Surlyn® 9020 ('293 patent, col. 2, lines (63-65.) It has a **Shore D hardness of 55** . (*See* CW 00512231 (Ex. 45).) **Nesbitt Incorporates the Materials of Molitor '637 by Reference**: "Reference is made to the application Ser. No. 155,658 of **Robert P. Molitor issued into U.S. Pat. No. 4,274,637** which describes a number of foamable compositions of a character which may be employed for … layers … 16 for the golf ball of this invention." (Nesbitt (Ex. 10), col. 3, lines 54-60.)

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Claim 1	**Nesbitt and Molitor '637**
	Molitor '637: Teaches the use of **Estane 58133** in Examples 16 and 17. (Molitor '637, col. 18.) Estane is a soft polyurethane material that has a **Shore D hardness of 55 as measured "off the ball**." (*See* CW 00615792 (Ex. 46).) **ON THE BALL** When measured **on the ball of Nesbitt** Molitor '637's outer cover layer has a Shore D hardness of 61.0. (MacKnight Decl. (Ex. 30) at ¶ 33.)
said outer cover layer having a thickness of 0.010 to 0.070 inches, and	"The **thickness of the outer layer or cover 16** of soft, low flexural modulus resin such as Surlyn type 1855, **may be in the range of 0.020 inches and 0.100 inches**." (Nesbitt (Ex. 10), col. 3, lines 22-25.) "The outer layer of the soft resin is of a thickness of **0.0575** inches." (Nesbitt (Ex. 10), col. 3, lines 39-40.)
said outer cover layer comprising a relatively soft polyurethane material.	**Molitor '637**: Estane 58133 is a relatively soft polyurethane material. (Molitor '637 (Ex. 12), col. 18.)

Claim 2	**Nesbitt and Molitor '637**
The golf ball according to claim 1,	See above.
wherein said golf ball has an overall diameter of 1.680 inches or more.	"According to the United States Golf Association Rules, the **minimum diameter prescribed for a golf ball is 1.680 inches**…." (Nesbitt (Ex. 10), col. 2, lines 50-52.) "This center or core 12 and inner layer 14 of hard resinous material in the form of a sphere is then remolded into a dimpled **golf ball of a diameter of 1.680 inches minimum** with an outer or cover layer 16 of a soft, low flexural modulus resin…." (Nesbitt (Ex. 10), col. 3, lines 34-38.)

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Claim 4	**Nesbitt and Molitor '637**
A multi-layer golf-ball comprising:	"The disclosure embraces **a golf ball** and method of making same …." (Nesbitt (Ex. 10), Abstract; FIGS 1 & 2.)
a spherical core;	"Referring to the drawings in detail there is illustrated a golf ball 10 which comprises a **solid center or core** formed as a solid body of resilient polymeric material or rubber-like material **in the shape of a sphere**." (Nesbitt (Ex. 10), col. 2, lines 31-34.)
an inner cover layer having …	"Disposed on the spherical center or core 12 is a first layer, lamination, ply or **inner cover 14** of molded hard, high flexural modulus resinous material…." (Nesbitt (Ex. 10), col. 2, lines 34-37.)
a Shore D hardness of 60 or more molded over said spherical core	"**[I]nner cover 14 of** molded **hard**, highly flexural modulus resinous material such as **type 1605 Surlyn®** marketed by E.I. DuPont de Nemours." (Nesbitt (Ex. 10), col. 2, lines 36-38.) "[A] center or core 12 … is **molded with a layer of hard, high modulus Surlyn resin**, such as Surlyn type 1605…" (Nesbitt, col. 3, lines 27-29.) **OFF THE BALL** **DuPont Surlyn Product Information:** Surlyn® 8940 (formerly 1605 (*see* '293 patent (Ex. 1), col. 2, lines 54-55)) has a Shore D hardness of 66 (*See id.* at Table 1). **ON THE BALL** Measurements of Surlyns made "on the ball" are higher than plaque measurements and would also be above 60. Nesbitt Depo. Trans. (Ex. 16) at 244:12—244:17.
said inner cover layer comprising an ionomeric resin including no more than 16% by weight of alpha, beta-unsaturated carboxylic acid	Surlyn® 1605 is a low acid ionomeric resin: **Per the '293 Patent:** "Type 1605 Surlyn® (Surlyn® 8940) is a sodium ion based low acid (less than or equal to 15 weight percent methacrylic acid) ionomer resin…". ('293 patent (Ex. 1), col. 2, lines 54-58.)
and having a modulus of from about 15,000 to about 70,000 psi	Surlyn® 1605 inherently exhibits the claimed modulus. "**Type 1605 Surlyn (Surlyn 8940)** is a sodium ion based low acid (less than or equal to 15 weight percent methacrylic acid) ionomer resin having a **flexural modulus of about 51,000 psi.**" ('293 patent (Ex. 1), col. 2, lines 55-59.)
an outer cover layer having	"An outer layer, ply, lamination or cover 16 … is then remolded onto the inner ply or layer 14…." (Nesbitt (Ex. 10), col. 2, lines 43-47.)

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Claim 4	**Nesbitt and Molitor '637**
a Shore D hardness of about 64 or less	**Nesbitt:** Nesbitt teaches an outer cover layer made of Surlyn® 1855 (now Surlyn® 9020) that has a **Shore D hardness of 55**. (*See* CW 00615792 (Ex. 46).) **Nesbitt Incorporates the Materials of Molitor '637 by Reference**: "Reference is made to the application Ser. No. 155,658 of **Robert P. Molitor issued into U.S. Pat. No. 4,274,637** which describes a number of foamable compositions of a character which may be employed for … layers … 16 for the golf ball of this invention." (Nesbitt (Ex. 10), col. 3, lines 54-60.) **Molitor '637**: Teaches the use of **Estane 58133** in Examples 16 and 17. (Molitor '637, col. 18.) Estane is a soft polyurethane material that has a **Shore D hardness of 55 measured off the ball**. (CW 00615792 (Ex. 46).) When measured **on the ball of Nesbitt** Molitor '637's outer cover layer has a Shore D hardness of 61.0. (MacKnight Decl. (Ex. 30) at ¶ 33.)
disposed about said inner cover layer and defining a plurality of dimples to form a multi-layer golf ball	"An outer layer, ply, lamination or cover 16 of comparatively soft, low flexural modulus resinous material … is then **re-molded onto the inner ply or layer 14 ….**" (Nesbitt (Ex. 10), col. 2, lines 43-47.) "[T]he outer layer or cover 16 **being of dimpled configuration**…." (Nesbitt (Ex. 10), col. 2, lines 48-49; Fig. 2.)
said outer layer comprising a polyurethane based material.	**Nesbitt Incorporates Materials of Molitor by Reference**: "Reference is made to the application Ser. No. 155,658, of Robert P. Molitor issued into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for one or both layers 14 and 16." (Nesbitt (Ex. 10), col. 3, lines 54-60.) **Molitor '637**: Teaches cover materials including "polyurethanes such as are prepared from polyols and organic polyisocyanates"; specifically Estane 58133 thermoplastic polyurethane. (Molitor '637 (Ex. 12), col. 5, lines 39-41; col. 18, lines 31-59 (examples 16 and 17).)

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Claim 5	**Nesbitt**
A golf ball according to claim 4	See above.
wherein said inner cover layer has a thickness of about 0.100 to about 0.010 inches	"It is found that the **inner layer** of hard, high flexural modulus resinous material such as Surlyn® resin type 1605, **is preferably of a thickness in a range of 0.020 inches and 0.070 inches**." (Nesbitt (Ex. 10), col. 3, lines 19-23.)
and said outer cover layer has a thickness of about 0.010 to about 0.070 inches,	"The **thickness of the outer layer or cover 16** of soft, low flexural modulus resin such as Surlyn type 1855, **may be in the range of 0.020 inches and 0.100 inches**." (Nesbitt, col. 3, lines 22-25.) "The **outer layer** of the soft resin is of **a thickness of 0.0575 inches**." (Nesbitt (Ex. 10), col. 3, lines 39-40.)
said golf ball having an overall diameter of 1.680 inches or more.	"According to the United States Golf Association Rules, the **minimum diameter prescribed for a golf ball is 1.680 inches**…." (Nesbitt, col. 2, lines 50-52.) "This center or core 12 and inner layer 14 of hard resinous material in the form of a sphere is then remolded into a dimpled **golf ball of a diameter of 1.680 inches minimum** with an outer or cover layer 16 of a soft, low flexural modulus resin…." (Nesbitt (Ex. 10), col. 3, lines 34-38.)

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NESBITT AND WU

Claim 1	**Nesbitt and Wu**
A golf ball comprising:	"The disclosure embraces **a golf ball** and method of making same …." (Nesbitt (Ex. 10), Abstract; FIGS 1 & 2.) "The present invention relates to **golf balls** . . . ." (Wu (Ex. 8), col. 1, line 5.)
a core;	"Referring to the drawings in detail there is illustrated a golf ball 10 which comprises a **solid center or core** formed as a solid body of resilient polymeric material or rubber-like material in the shape of a sphere." (Nesbitt (Ex. 10), col. 2, lines 31-34.) Conventionally, golf balls are made by molding a cover about a core . . . ." (Wu (Ex. 8), col. 1, lines 15-16.)
an inner cover layer having …	"Disposed on the spherical center or core 12 is a first layer, lamination, ply or **inner cover 14** of molded hard, highly flexural modulus resinous material…." (Nesbitt (Ex. 10), col. 2, lines 34-37.)
a Shore D hardness of 60 or more molded on said core,	**Nesbitt**: "[I]nner cover 14 of molded **hard**, high flexural modulus resinous material such as **type 1605 Surlyn® marketed by E.I DuPont de Nemours**." (Nesbitt, col. 2, lines 36-38.) **Per the '293 Patent**: "Type 1605 Surlyn® (now designated Surlyn® 8940)." ('293 patent (Ex. 1), col. 2, lines 54-55.) **OFF THE BALL** **DuPont Surlyn Product Information:** Surlyn® 8940 (formerly 1605 (*see* '293 patent, col. 2, lines 54-55)) has a Shore D hardness of 66 (*see id* at Table 1.) **ON THE BALL** Measurements of Surlyns made "on the ball" are higher than plaque measurements and would also be above 60. Nesbitt Depo. Trans. at 244:12—244:17 (Ex. 16.) **Nesbitt Incorporates the Materials of Molitor '637 by Reference**: Molitor '637 discloses a blend of two ionomers (Molitor '637 (Ex. 12), Table 1.) Measurements of Surlyns made "on the ball" are higher than plaque measurements and would also be above 60. Nesbitt Depo. Trans. at 244:12—244:17. Molitor '637 discloses a blend of two ionomers which has a Shore D hardness of 64.3 when measured "off the ball." (*See* "Blend 3" AC 0131414 (Ex. 34).)

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Claim 1	**Nesbitt and Wu**
said inner cover layer having a thickness of 0.100 to 0.010 inches,	"It is found that the inner layer of hard, high flexural modulus resinous material such as Surlyn® resin type 1605, is preferably of a thickness in a range of 0.020 inches and 0.070 inches." (Nesbitt (Ex. 10), col. 3, lines 19-23.)
said inner cover layer comprising a blend of two or more low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid; and	**Nesbitt Incorporates the Materials of Molitor '637 by Reference**: "Reference is made to the application Ser. No. 155,658 of **Robert P. Molitor issued into U.S. Pat. No. 4,274,637** which describes a number of foamable compositions of a character which may be employed for … layers 14 … for the golf ball of this invention." (Nesbitt (Ex. 10), col. 3, lines 54-60.) **Molitor '637**: Molitor teaches, in examples 1-7, cover materials including a blend of two ionomer resins: Surlyn 1605 and Surlyn 1557. (Molitor '637, col. 14, line 22 to col. 16, line 34.) Type 1605 Surlyn® is now designated Surlyn® 8940. ('293 patent (Ex. 1), col. 2, lines 54-55.) It has about 15% acid. (*Id.* at col 8, lines 20-21.) Type 1557 Surlyn is now designated Surlyn 9650. (DUP 000038 (Ex. 36).) It has an acid content of about 11%. (DUP 000132 (Ex. 37).) Callaway admits that Nesbitt teaches the use of the ionomer blend found in Molitor '637 in a multi-layer golf ball. (*See* Response to Office Action Mailed February 27, 2007 in Reexam. Cont. No. 95/000,120 (Ex. 28) at 16.)
an outer cover layer having …	"An **outer layer, ply, lamination or cover 16** … is then remolded onto the inner ply or layer 14…." (Nesbitt (Ex. 10),col. 2, lines 43-47.) "The present invention relates to . . . polyurethane covered golf balls." (Wu (Ex. 8), col. 1, lines 6-7.)

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Claim 1	**Nesbitt and Wu**
a Shore D hardness of 64 or less molded on said inner cover layer,	**Nesbitt:** Nesbitt teaches an outer cover layer made of Surlyn® 1855 (now Surlyn® 9020) that has a **Shore D hardness of 55**. (*See* CW 00512231 (Ex. 45).) **Nesbitt Incorporates the Materials of Molitor '637 by Reference**: "Reference is made to the application Ser. No. 155,658 of **Robert P. Molitor issued into U.S. Pat. No. 4,274,637** which describes a number of foamable compositions of a character which may be employed for … layers … 16 for the golf ball of this invention." (Nesbitt (Ex. 10), col. 3, lines 54-60.) **Molitor '637**: Teaches the use of **Estane 58133** in Examples 16 and 17. (Molitor '637, col. 18.) Estane is a soft polyurethane material that has a **Shore D hardness of 55 measured off the ball**. (CW 00615792 (Ex. 46).) When measured **on the ball of Nesbitt** Molitor '637's outer cover layer has a Shore D hardness of 61.0. (MacKnight Decl. (Ex. 30) at ¶ 33). **Wu** **ON THE BALL** Wu's polyurethane has a Shore D hardness of 55.6 when measured on Nesbitt's ball. (MacKnight Decl. (Ex. 30) at ¶ 33.) **OFF THE BALL** Off the ball measurements of polyurethanes are lower than on the ball the measurements (Wu Depo. Trans. (Ex. 33) at 60:14—60:24.) This material had a Shore D hardness of **51.6** when measured "off the ball." (*See* AC0131414 (Ex. 34) showing measurements of MDI prepolymer.)
said outer cover layer having a thickness of 0.010 to 0.070 inches, and	"The outer layer of the soft resin is of a thickness of **0.0575** inches." (Nesbitt (Ex. 10), col. 3, lines 39-40.)
said outer cover layer comprising a relatively soft polyurethane material.	**Molitor '637**: Estane 58133 is a relatively soft polyurethane material. (Molitor '637 (Ex. 12), col. 18.) **Wu** Wu discloses a golf ball cover formulation comprising a polyurethane. (Wu (Ex. 8) Table 1; col. 7, line 10—col. 8, ll. 35; claim 1.)

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Claim 2	**Nesbitt and Wu**
The golf ball according to claim 1,	See above.
wherein said golf ball has an overall diameter of 1.680 inches or more.	"According to the United States Golf Association Rules, the **minimum diameter prescribed for a golf ball is 1.680 inches**…." (Nesbitt (Ex. 10), col. 2, lines 50-52.) "This center or core 12 and inner layer 14 of hard resinous material in the form of a sphere is then remolded into a dimpled **golf ball of a diameter of 1.680 inches minimum** with an outer or cover layer 16 of a soft, low flexural modulus resin…." (Nesbitt (Ex. 10), col. 3, lines 34-38.)

Claim 4	**Nesbitt and Wu**
A multi-layer golf-ball comprising:	"The disclosure embraces **a golf ball** and method of making same …." (Nesbitt (Ex. 10), Abstract; FIGS 1 & 2.) "The present invention relates to **golf balls** . . . ." (Wu (Ex. 8), col. 1, line 5.)
a spherical core;	"Referring to the drawings in detail there is illustrated a golf ball 10 which comprises a **solid center or core** formed as a solid body of resilient polymeric material or rubber-like material **in the shape of a sphere**." (Nesbitt (Ex. 10), col. 2, lines 31-34.) Conventionally, golf balls are made by molding a cover about a core . . . ." (Wu (Ex. 8), col. 1, lines 15-16.)
an inner cover layer having …	"Disposed on the spherical center or core 12 is a first layer, lamination, ply or **inner cover 14** of molded hard, high flexural modulus resinous material…." (Nesbitt (Ex. 10), col. 2, lines 34-37.)

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Claim 4	Nesbitt and Wu
a Shore D hardness of 60 or more molded over said spherical core	"**[I]nner cover 14 of** molded **hard**, highly flexural modulus resinous material such as **type 1605 Surlyn®** marketed by E.I. DuPont de Nemours." (Nesbitt (Ex. 10), col. 2, lines 36-38.) "[A] center or core 12 … is **molded with a layer of hard, high modulus Surlyn resin**, such as Surlyn type 1605…" (Nesbitt (Ex. 10), col. 3, lines 27-29.) **OFF THE BALL** **DuPont Surlyn Product Information:** Surlyn® 8940 (formerly 1605) (*see* '293 patent (Ex. 1), col. 2, lines 54-55)) has a Shore D hardness of 66. ('293 patent (Ex. 1), Table 1.) **ON THE BALL** Measurements of Surlyns made "on the ball" are higher than plaque measurements and would also be above 60. Nesbitt Depo. Trans. at 244:12—244:17.
said inner cover layer comprising an ionomeric resin including no more than 16% by weight of alpha, beta-unsaturated carboxylic acid	Surlyn® 1605 is a low acid ionomeric resin: **Per the '293 Patent:** "Type 1605 Surlyn® (Surlyn® 8940) is a sodium ion based low acid (less than or equal to 15 weight percent methacrylic acid) ionomer resin…". ('293 patent (Ex. 1), col. 2, lines 54-58.)
and having a modulus of from about 15,000 to about 70,000 psi	Surlyn® 1605 inherently exhibits the claimed modulus. "**Type 1605 Surlyn (Surlyn 8940)** is a sodium ion based low acid (less than or equal to 15 weight percent methacrylic acid) ionomer resin having a **flexural modulus of about 51,000 psi.**" ('293 patent (Ex. 1), col. 2, lines 55-59.)
an outer cover layer having	"An outer layer, ply, lamination or cover 16 … is then remolded onto the inner ply or layer 14…." (Nesbitt (Ex. 10), col. 2, lines 43-47.) "The present invention relates to . . . polyurethane covered golf balls." (Wu (Ex. 8), col. 1, lines 6-7.)

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Claim 4	Nesbitt and Wu
a Shore D hardness of about 64 or less	**Nesbitt:** Nesbitt teaches an outer cover layer made of Surlyn® 1855 (now Surlyn® 9020) that has a **Shore D hardness of 55**. (CW 00615792 (Ex. 46).) **Nesbitt Incorporates the Materials of Molitor '637 by Reference**: "Reference is made to the application Ser. No. 155,658 of **Robert P. Molitor issued into U.S. Pat. No. 4,274,637** which describes a number of foamable compositions of a character which may be employed for … layers … 16 for the golf ball of this invention." (Nesbitt (Ex. 10), col. 3, lines 54-60.) **Molitor '637**: Teaches the use of **Estane 58133** in Examples 16 and 17. (Molitor '637 (Ex. 12), col. 18.) Estane is a soft polyurethane material that has a **Shore D hardness of 55 measured off the ball**. (CW 00615792 (Ex. 46).) When measured **on the ball of Nesbitt** Molitor '637's outer cover layer has a Shore D hardness of 61.0. (MacKnight Decl. (Ex. 30) at ¶ 33.) **Wu** **ON THE BALL** Wu's polyurethane has a Shore D hardness of 55.6 when measured on Nesbitt's ball. (MacKnight Decl. (Ex. 30) at ¶ 33.) **OFF THE BALL** Off the ball measurements of polyurethanes are lower than on the ball the measurements (Wu Depo. Trans. at 60:14—60:24.) This material had a Shore D hardness of **51.6** when measured "off the ball." (*See* AC0131414 (Ex. 34) showing measurements of MDI prepolymer.)
disposed about said inner cover layer and defining a plurality of dimples to form a multi-layer golf ball	"An outer layer, ply, lamination or cover 16 of comparatively soft, low flexural modulus resinous material … is then **re-molded onto the inner ply or layer 14 ….**" (Nesbitt (Ex. 10), col. 2, lines 43-47.) "[T]he outer layer or cover 16 **being of dimpled configuration**…." (Nesbitt (Ex. 10), col. 2, lines 48-49; Fig. 2.) "In the final molding step, a compression mold is used to impart a dimple patter upon the cover . . . ." (Wu (Ex. 8), col. 5, lines 32-34.)

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Claim 4	Nesbitt and Wu
said outer layer comprising a polyurethane based material.	**Nesbitt Incorporates Materials of Molitor by Reference**: "Reference is made to the application Ser. No. 155,658, of Robert P. Molitor issued into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for one or both layers 14 and 16." (Nesbitt (Ex. 10), col. 3, lines 54-60.) **Molitor '637**: Teaches cover materials including "polyurethanes such as are prepared from polyols and organic polyisocyanates"; specifically Estane 58133 thermoplastic polyurethane. (Molitor '637 (Ex. 12), col. 5, lines 39-41; col. 18, lines 31-59 (examples 16 and 17).) **Wu** Wu discloses a golf ball cover formulation comprising a polyurethane. (Wu (Ex. 8) Table 1; col. 7, line 10—col. 8, ll. 35; claim 1.)

Claim 5	Nesbitt and Wu
A golf ball according to claim 4	See above.
wherein said inner cover layer has a thickness of about 0.100 to about 0.010 inches	"It is found that the **inner layer** of hard, high flexural modulus resinous material such as Surlyn® resin type 1605, **is preferably of a thickness in a range of 0.020 inches and 0.070 inches**." (Nesbitt (Ex. 10), col. 3, lines 19-23.)
and said outer cover layer has a thickness of about 0.010 to about 0.070 inches,	"The **thickness of the outer layer or cover 16** of soft, low flexural modulus resin such as Surlyn type 1855, **may be in the range of 0.020 inches and 0.100 inches**." (Nesbitt (Ex. 10), col. 3, lines 22-25.) "The **outer layer** of the soft resin is of **a thickness of 0.0575 inches**." (Nesbitt (Ex. 10), col. 3, lines 39-40.)
said golf ball having an overall diameter of 1.680 inches or more.	"According to the United States Golf Association Rules, the **minimum diameter prescribed for a golf ball is 1.680 inches**…." (Nesbitt (Ex. 10), col. 2, lines 50-52.) "This center or core 12 and inner layer 14 of hard resinous material in the form of a sphere is then remolded into a dimpled **golf ball of a diameter of 1.680 inches minimum** with an outer or cover layer 16 of a soft, low flexural modulus resin…." (Nesbitt (Ex. 10), col. 3, lines 34-38.)

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NESBIT AND MOLITOR '751

Claim 1	**Nesbitt and Molitor '751**
A golf ball comprising:	"The disclosure embraces **a golf ball** and method of making same …." (Nesbitt (Ex. 10), Abstract; FIGS 1 & 2.) "This invention relates to golf balls . . . ." (Molitor '751 (Ex. 13), col. 1, line 11.)
a core;	"Referring to the drawings in detail there is illustrated a golf ball 10 which comprises a **solid center or core** formed as a solid body of resilient polymeric material or rubber-like material in the shape of a sphere." (Nesbitt (Ex. 10), col. 2, lines 31-34.) Conventional solid cores are typically compression molded from a slug of uncured or lightly cured elastomer composition . . . ." (Molitor '751 (Ex. 13), col. 5, lines 44-47.)
an inner cover layer having …	"Disposed on the spherical center or core 12 is a first layer, lamination, ply or **inner cover 14** of molded hard, highly flexural modulus resinous material…." (Nesbitt (Ex. 10), col. 2, lines 34-37.) "The phrase "two-piece ball" as used herein . . . also includes balls having a **separate solid layer beneath the cover** as disclosed, for example, in U.S. Pat. No. 4,431,193 to Nesbitt, and other balls having non-wound cores." (Molitor '751 (Ex. 13), col. 3, lines 7-12.)

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Claim 1	**Nesbitt and Molitor '751**
a Shore D hardness of 60 or more molded on said core,	**Nesbitt**: "[I]nner cover 14 of molded **hard**, high flexural modulus resinous material such as **type 1605 Surlyn® marketed by E.I DuPont de Nemours**." (Nesbitt (Ex. 10), col. 2, lines 36-38.) **Per the '293 Patent**: "Type 1605 Surlyn® (now designated Surlyn® 8940)." ('293 patent, col. 2, lines 54-55.) **OFF THE BALL** **DuPont Surlyn Product Information:** Surlyn® 8940 (formerly 1605 (*see* '293 patent, col. 2, lines 54-55)) has a Shore D hardness of 66 (*see id.* at Table 1.) **ON THE BALL** Measurements of Surlyns made "on the ball" are higher than plaque measurements and would also be above 60. (*See* Nesbitt Depo. Trans. (Ex. 16) at 244:12—244:17.) **Nesbitt Incorporates the Materials of Molitor '637 by Reference**: Molitor '637 discloses a blend of two ionomers (Molitor '637 (Ex. 12), Table1.) Molitor '637 discloses a blend of two ionomers which has a Shore D hardness of 64.3 when measured "off the ball." (*See* "Blend 3" AC 0131414 (Ex. 34).) Measurements of Surlyns made "on the ball" are higher than plaque measurements and would also be above 60. (Nesbitt Depo. Trans. (Ex. 16) at 244:12—244:17.)
said inner cover layer having a thickness of 0.100 to 0.010 inches,	"It is found that the inner layer of hard, high flexural modulus resinous material such as Surlyn® resin type 1605, is preferably of a thickness in a range of 0.020 inches and 0.070 inches." (Nesbitt (Ex. 10), col. 3, lines 19-23.)

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Claim 1	**Nesbitt and Molitor '751**
said inner cover layer comprising a blend of two or more low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid; and	**Nesbitt Incorporates the Materials of Molitor '637 by Reference**: "Reference is made to the application Ser. No. 155,658 of **Robert P. Molitor issued into U.S. Pat. No. 4,274,637** which describes a number of foamable compositions of a character which may be employed for … layers 14 … for the golf ball of this invention." (Nesbitt (Ex. 10), col. 3, lines 54-60.) **Molitor '637**: Molitor teaches, in examples 1-7, cover materials including a blend of two ionomer resins: Surlyn 1605 and Surlyn 1557. (Molitor '637 (Ex. 12), col. 14, line 22 to col. 16, line 34.) Type 1605 Surlyn® is now designated Surlyn® 8940. ('293 patent (Ex. 1), col. 2, lines 54-55.) It has about 15% acid. ('293 patent (Ex. 1), col. 2, lines 55-57.) Type 1557 Surlyn is now designated Surlyn 9650. (DUP 000038 (Ex. 36).) It has an acid content of about 11%. (DUP 000132 (Ex. 37).) Callaway admits that Nesbitt teaches the use of the ionomer blend found in Molitor '637 in a multi-layer golf ball. (*See* Response to Office Action Mailed February 27, 2007 in Reexam. Cont. No. 95/000,120 (Ex. 28) at 16.) **Molitor '751** Molitor '751 teaches blends comprising Surlyn 1605 (8940), Surlyn 1706 (9910). (Molitor '751 (Ex. 13), Table 1.) Each of these materials is less than 16% acid (*See* '293 patent (Ex. 1), col. 8, lines 20-27.)
an outer cover layer having …	"An **outer layer, ply, lamination or cover 16** … is then remolded onto the inner ply or layer 14…." (Nesbitt (Ex. 10), col. 2, lines 43-47.) "The preferred components of the cover material comprise a thermoplastic polyurethane . . . ." (Molitor '751 (Ex. 13), col. 3, lines 6-7.)

<table>
<tr><th>Claim 1</th><th>Nesbitt and Molitor ‘751</th></tr>
<tr><td>a Shore D hardness of 64 or less molded on said inner cover layer,</td><td>
<u>Nesbitt:</u> Nesbitt teaches an outer cover layer made of Surlyn® 1855 (now Surlyn® 9020) that has a Shore D hardness of 55. (CW 00512231 (Ex. 45).)

<u>Nesbitt Incorporates the Materials of Molitor ’637 by Reference</u>:

“Reference is made to the application Ser. No. 155,658 of Robert P. Molitor issued into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for … layers … 16 for the golf ball of this invention.” (Nesbitt (Ex. 10), col. 3, lines 54-60.)

<u>Molitor ’637</u>: Teaches the use of Estane 58133 in Examples 16 and 17. (Molitor ’637, col. 18.) Estane is a soft polyurethane material that has a Shore D hardness of 55 measured off the ball. (CW 00615792 (Ex. 46).)

When measured on the ball of Nesbitt Molitor ‘637’s outer cover layer has a Shore D hardness of 61.0. (MacKnight Decl. (Ex. 30) at ¶ 33).

<u>Molitor ‘751:</u>

<u>ON THE BALL</u>

Molitor ‘751 discloses the following blend as the most preferred ((Ex. 13), col. 7, line 25, Table):

<table>
<tr><th>Material</th><th>Parts</th></tr>
<tr><td>Texin 480 AR (now 285)</td><td>90</td></tr>
<tr><td>Surlyn 1605 (now 8940)</td><td>10</td></tr>
<tr><td>TiO2</td><td>5</td></tr>
<tr><td>Fluorescent Brightener</td><td>0.10</td></tr>
<tr><td>Antioxidant</td><td>0.17</td></tr>
<tr><td>Pigment</td><td>0.02</td></tr>
<tr><td>Release Agent</td><td>1</td></tr>
</table>
When measured on Nesbitt’s ball, this cover has a Shore D hardness of hardness of 49.6. (MacKnight Decl. (Ex. 30) at ¶ 33).

<u>OFF THE BALL</u>

When measured off the ball, this formulation had a Shore D hardness of 39.5 (See “Texin Blend” average Shore D hardness at AC 0131414 (Ex. 34).)
</td></tr>
</table>

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Claim 1	**Nesbitt and Molitor '751**
said outer cover layer having a thickness of 0.010 to 0.070 inches, and	"The outer layer of the soft resin is of a thickness of **0.0575** inches." (Nesbitt (Ex. 10), col. 3, lines 39-40.)
said outer cover layer comprising a relatively soft polyurethane material.	**Molitor '637**: Estane 58133 is a relatively soft polyurethane material. (Molitor '637 (Ex. 12), col. 18.) **Molitor '751:** "The preferred components of the cover material comprise a thermoplastic polyurethane . . . ." (Molitor '751 (Ex. 13), col. 3, lines 6-7.)

Claim 2	**Nesbitt and Molitor '751**
The golf ball according to claim 1,	See above.
wherein said golf ball has an overall diameter of 1.680 inches or more.	"According to the United States Golf Association Rules, the **minimum diameter prescribed for a golf ball is 1.680 inches**…." (Nesbitt (Ex. 10), col. 2, lines 50-52.) "This center or core 12 and inner layer 14 of hard resinous material in the form of a sphere is then remolded into a dimpled **golf ball of a diameter of 1.680 inches minimum** with an outer or cover layer 16 of a soft, low flexural modulus resin…." (Nesbitt (Ex. 10), col. 3, lines 34-38.)

Claim 4	**Nesbitt and Molitor '751**
A multi-layer golf-ball comprising:	"The disclosure embraces **a golf ball** and method of making same …." (Nesbitt (Ex. 10), Abstract; FIGS 1 & 2.)
a spherical core;	"Referring to the drawings in detail there is illustrated a golf ball 10 which comprises a **solid center or core** formed as a solid body of resilient polymeric material or rubber-like material **in the shape of a sphere**." (Nesbitt, col. 2, lines 31-34.)
an inner cover layer having …	"Disposed on the spherical center or core 12 is a first layer, lamination, ply or **inner cover 14** of molded hard, high flexural modulus resinous material…." (Nesbitt (Ex. 10), col. 2, lines 34-37.)

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Claim 4	Nesbitt and Molitor '751
a Shore D hardness of 60 or more molded over said spherical core	"**[I]nner cover 14 of** molded **hard**, highly flexural modulus resinous material such as **type 1605 Surlyn®** marketed by E.I. DuPont de Nemours." (Nesbitt (Ex. 10), col. 2, lines 36-38.) "[A] center or core 12 … is **molded with a layer of hard, high modulus Surlyn resin**, such as Surlyn type 1605…" (Nesbitt (Ex. 10), col. 3, lines 27-29.) **OFF THE BALL** **DuPont Surlyn Product Information:** Surlyn® 8940 (formerly 1605) (*see* '293 patent (Ex. 1), col. 2, lines 54-55)) has a Shore D hardness of 66. ('293 patent (Ex. 1), Table 1.) **ON THE BALL** Measurements of Surlyns made "on the ball" are higher than plaque measurements and would also be above 60. (*See* Nesbitt Depo. Trans. (Ex. 16) at 244:12—244:17.)
said inner cover layer comprising an ionomeric resin including no more than 16% by weight of alpha, beta-unsaturated carboxylic acid	Surlyn® 1605 is a low acid ionomeric resin: **Per the '293 Patent:** "Type 1605 Surlyn® (Surlyn® 8940) is a sodium ion based low acid (less than or equal to 15 weight percent methacrylic acid) ionomer resin…" ('293 patent (Ex. 1), col. 2, lines 54-58.)
and having a modulus of from about 15,000 to about 70,000 psi	Surlyn® 1605 inherently exhibits the claimed modulus. "**Type 1605 Surlyn (Surlyn 8940)** is a sodium ion based low acid (less than or equal to 15 weight percent methacrylic acid) ionomer resin having a **flexural modulus of about 51,000 psi.**" ('293 patent (Ex. 1), col. 2, lines 55-59.)
an outer cover layer having	"An outer layer, ply, lamination or cover 16 … is then remolded onto the inner ply or layer 14…." (Nesbitt (Ex. 10), col. 2, lines 43-47.) **Molitor '751:** "The preferred components of the cover material comprise a thermoplastic polyurethane . . . ." (Molitor '751 (Ex. 13), col. 3, lines 6-7.)
a Shore D hardness of about 64 or less	**Nesbitt:** Nesbitt teaches an outer cover layer made of Surlyn® 1855 (now Surlyn® 9020) that has a **Shore D hardness of 55**. (CW 00512231 (Ex. 45).) **Nesbitt Incorporates the Materials of Molitor '637 by Reference**: "Reference is made to the application Ser. No. 155,658 of

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<table>
<tr><th>Claim 4</th><th>Nesbitt and Molitor ‘751</th></tr>
<tr><td></td><td>
Robert P. Molitor issued into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for … layers … 16 for the golf ball of this invention.” (Nesbitt (Ex. 10), col. 3, lines 54-60.)
<u>Molitor ’637</u>: Teaches the use of Estane 58133 in Examples 16 and 17. (Molitor ’637, col. 18.) Estane is a soft polyurethane material that has a Shore D hardness of 55 measured off the ball. (CW 00615792 (Ex. 46).)

When measured on the ball of Nesbitt Molitor ‘637’s outer cover layer has a Shore D hardness of 61.0. (MacKnight Decl. (Ex. 30) at ¶ 33).
<u>Molitor ‘751:</u>
<u>ON THE BALL</u>
Molitor ‘751 discloses the following blend as the most preferred (col. 7, line 25, Table):
<table>
<tr><th>Material</th><th>Parts</th></tr>
<tr><td>Texin 480 AR (now 285)</td><td>90</td></tr>
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<tr><td>Release Agent</td><td>1</td></tr>
</table>
When measured on Nesbitt’s ball, this cover has a Shore D hardness of hardness of 49.6. (MacKnight Decl. (Ex. 30) at ¶ 33).
<u>OFF THE BALL</u>
When measured off the ball, this formulation had a Shore D hardness of 39.5 (See “Texin Blend” average Shore D hardness at AC 0131414 (Ex. 34).)
</td></tr>
<tr><td>disposed about said inner cover layer and defining a plurality of dimples to form a multi-layer golf ball</td><td>“The outer layer of the soft resin is of a thickness of 0.0575 inches.” (Nesbitt (Ex. 10), col. 3, lines 39-40.)</td></tr>
</table>

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Claim 4	Nesbitt and Molitor '751
said outer layer comprising a polyurethane based material.	**Nesbitt Incorporates Materials of Molitor by Reference**: "Reference is made to the application Ser. No. 155,658, of Robert P. Molitor issued into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for one or both layers 14 and 16." (Nesbitt (Ex. 10), col. 3, lines 54-60.) **Molitor '637**: Teaches cover materials including "polyurethanes such as are prepared from polyols and organic polyisocyanates"; specifically Estane 58133 thermoplastic polyurethane. (Molitor '637 (Ex. 12), col. 5, lines 39-41; col. 18, lines 31-59 (examples 16 and 17).) **Molitor '751:** "The preferred components of the cover material comprise a thermoplastic polyurethane . . . ." (Molitor '751 (Ex. 13), col. 3, lines 6-7.)

Claim 5	Nesbitt and Molitor '751
A golf ball according to claim 4	See above.
wherein said inner cover layer has a thickness of about 0.100 to about 0.010 inches	"It is found that the **inner layer** of hard, high flexural modulus resinous material such as Surlyn® resin type 1605, **is preferably of a thickness in a range of 0.020 inches and 0.070 inches**." (Nesbitt (Ex. 10), col. 3, lines 19-23.)
and said outer cover layer has a thickness of about 0.010 to about 0.070 inches,	"The **thickness of the outer layer or cover 16** of soft, low flexural modulus resin such as Surlyn type 1855, **may be in the range of 0.020 inches and 0.100 inches**." (Nesbitt (Ex. 10), col. 3, lines 22-25.) "The **outer layer** of the soft resin is of **a thickness of 0.0575 inches**." (Nesbitt (Ex. 10), col. 3, lines 39-40.)
said golf ball having an overall diameter of 1.680 inches or more.	"According to the United States Golf Association Rules, the **minimum diameter prescribed for a golf ball is 1.680 inches**…." (Nesbitt (Ex. 10), col. 2, lines 50-52.) "This center or core 12 and inner layer 14 of hard resinous material in the form of a sphere is then remolded into a dimpled **golf ball of a diameter of 1.680 inches minimum** with an outer or cover layer 16 of a soft, low flexural modulus resin…." (Nesbitt (Ex. 10), col. 3, lines 34-38.)

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PROUDFIT AND MOLITOR '637

Claim 1	**Proudfit and Molitor '637**
A golf ball comprising:	"This **invention relates to golf balls**, and more particularly, to a golf ball having a two-layer cover." (Proudfit (Ex. 5), col. 1, lines 11-12.)
a core;	"FIG. 1 illustrates a two-piece golf ball 10 which includes a **solid core 11** and a cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins and a relatively soft outer layer 14 of polymeric material." (Proudfit (Ex. 5), col. 7, lines 21-24.) "Two specific **solid core compositions** used with the new two-layer cover had the composition described in Table 1. **One core** was used in a golf ball which was designated as a 90 compression ball, and **the other core** was used in a golf ball which was designated as a 100 compression ball." (Proudfit (Ex. 5), col. 7, lines 51-55.)
an inner cover layer having …	"FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a **cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins** and a relatively soft outer layer 14 of polymeric material." (Proudfit (Ex. 5), col. 7, lines 21-24.)
a Shore D hardness of 60 or more molded on said core,	"The composition of the inner cover layer is described in Table 6." TABLE 6 Composition of Inner Layer of Cover (Parts by Weight) Ionomer Type — Blend Ratio Sodium- Surlyn 8940 — 75% Zinc- Surlyn 9910 — 25% (Proudfit (Ex. 5), col. 8, lines 22-30.) Surlyn® 8940 has a Shore D hardness of 66; Surlyn® 9910 has a Shore D hardness of 64 (CW 00512231 (Ex. 45).) Therefore, this cover blend has a hardness of 60 or more when measured off the ball, specifically 64.7. (*See* "Blend 2" described in AC 0131414 (Ex. 34).) "The inner layer can be molded in one of two methods: 1. Injection molded over the core in a manner which is conventionally used to injection mold ionomers over a solid core. 2. Injection mold halfshells, place halfshells over the core, compression mold the inner cover over the core." (Proudfit (Ex.

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Claim 1	**Proudfit and Molitor '637**
	5), col. 8, lines 32-38.)
said inner cover layer having a thickness of 0.100 to 0.010 inches,	"The **thickness of the inner layer can be** within the range of about **0.0250 to 0.2875 inch** to provide a total diameter of the inner layer and core within the range of about 1.550 to 1.590 inch." (Proudfit (Ex. 5), col. 7, lines 37-40.) "The preferred dimensions are … and **inner layer thickness of 0.037 inch**…." (Proudfit (Ex. 5), col. 7, lines 43-44.)
said inner cover layer comprising a blend of two or more low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid; and	"The composition of the inner cover layer is described in Table 6." TABLE 6 Composition of Inner Layer of Cover (Parts by Weight) Ionomer Type — Blend Ratio Sodium- Surlyn 8940 — 75% Zinc- Surlyn 9910 — 25% (col. 8, lines 22-30.) Surlyn® 8940 and Surlyn® 9910 are both low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid. (*See* '293 patent (Ex. 1), col. 8, lines 20-27.)
an outer cover layer having …	"FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a **cover 12 which comprises** a relatively hard inner layer 13 of one or more ionomer resins and **a relatively soft outer layer 14 of polymeric material.**" (Proudfit (Ex. 5), col. 7, lines 21-24.)
a Shore D hardness of 64 or less molded on said inner cover layer,	"… an **outer layer of soft material** such as balata or a blend of balata and other elastomers." (Proudfit (Ex. 5), col. 5, lines 15-17.) Balata has a Shore D hardness of less than 64. (*See* Decl. of Edmund A. Hebert (Ex. 25) at ¶ 7; Nesbitt Depo. Trans. (Ex. 16) at 121:2—121:5.). The Wilson Ultra Tour Balata Ball, which is made according to the Proudfit patent (*See* CW 0302942-47 (Ex.) has a Shore D hardness of less than 64 when measured on the ball. (*See* AC 0131413 (Ex. 34).) **Molitor '637**: Teaches the use of **Estane 58133** in Examples 16 and 17. (Molitor '637 (Ex. 12), col. 18.) Estane is a soft polyurethane material that has a **Shore D hardness of 55 as measured "off the ball**." (CW 00615792 (Ex. 46).) **ON THE BALL** When measured **on the ball of Proudfit** Molitor '637's outer cover layer has a Shore D hardness of **59.4**. (MacKnight Decl. (Ex. 30) at ¶ 33.)
said outer cover layer	"The **thickness of the outer layer can be** within the range of

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Claim 1	**Proudfit and Molitor '637**
having a thickness of 0.010 to 0.070 inches, and	about **0.0450 to 0.0650 inch** to provide a total ball diameter of 1.680 inch. The preferred dimensions are … an **outer layer thickness of 0.0525 inch**…." (Proudfit (Ex. 5), col. 7, lines 40-46.)
said outer cover layer comprising a relatively soft polyurethane material.	"… an **outer layer** of soft material such as balata or **a blend of balata and other elastomers**." (Proudfit (Ex. 5), col. 5, lines 15-17.) **Molitor '637**: Estane 58133 is a relatively soft polyurethane material. (Molitor '637 (Ex. 12), col. 18.)

Claim 2	**Proudfit and Molitor '637**
The golf ball according to claim 1,	See above.
wherein said golf ball has an overall diameter of 1.680 inches or more.	"The preferred dimensions are a core diameter of 1.500 inch, and inner layer thickness of 0.037 inch (inner layer diameter of 1.575 inch), and an outer layer thickness of 0.0525 inch **(total ball diameter of 1.680 inch)**." (Proudfit (Ex. 5), col. 7, lines 43-47.)

Claim 4	**Proudfit and Molitor '637**
A multi-layer golf-ball comprising:	"This **invention relates to golf balls**, and more particularly, to a golf ball having a **two-layer cover**." (Proudfit (Ex. 5), col. 1, lines 11-12.)
a spherical core;	"FIG. 1 illustrates a two-piece golf ball 10 which includes a **solid core 11** and a cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins and a relatively soft outer layer 14 of polymeric material." (Proudfit (Ex. 5), col. 7, lines 21-24; FIGS 1, 2.) "Two specific **solid core compositions** used with the new two-layer cover had the composition described in Table 1. **One core** was used in a golf ball which was designated as a 90 compression ball, and **the other core** was used in a golf ball which was designated as a 100 compression ball." (Proudfit (Ex. 5), col. 7, lines 51-55.)
an inner cover layer having …	"FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a **cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins** and a relatively soft outer layer 14 of polymeric material." (Proudfit (Ex. 5), col. 7, lines 21-24.)
a Shore D hardness of 60 or more molded over said spherical core	"The composition of the inner cover layer is described in Table 6."

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Claim 4	Proudfit and Molitor '637
	TABLE 6 Composition of Inner Layer of Cover (Parts by Weight) Ionomer Type — Blend Ratio Sodium- Surlyn 8940 — 75% Zinc- Surlyn 9910 — 25% (Proudfit (Ex. 5), col. 8, lines 22-30.) Surlyn® 8940 has a Shore D hardness of 66; Surlyn® 9910 has a Shore D hardness of 64 (CW 00512231 (Ex. 45).) Therefore, this cover blend has a hardness of 60 or more when measured off the ball, specifically 64.7. (*See* "Blend 2" described in AC 0131414 (Ex. 34).) "The inner layer can be molded in one of two methods: 1. **Injection molded** over the core in a manner which is conventionally used to injection mold ionomers over a solid core. 2. Injection mold halfshells, place halfshells over the core, **compression mold the inner cover over the core**." (Proudfit (Ex. 5), col. 8, lines 32-38.)
said inner cover layer comprising an ionomeric resin including no more than 16% by weight of alpha, beta-unsaturated carboxylic acid	"The composition of the inner cover layer is described in Table 6." TABLE 6 Composition of Inner Layer of Cover (Parts by Weight) Ionomer Type — Blend Ratio Sodium- Surlyn 8940 — 75% Zinc- Surlyn 9910 — 25% (Proudfit (Ex. 5), col. 8, lines 22-30.) Surlyn® 8940 and Surlyn® 9910 are both low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid. (*See* '293 patent (Ex. 1), col. 8, lines 20-27.)
and having a modulus of from about 15,000 to about 70,000 psi	"The **standard resins have a flexural modulus in the range of about 30,000 to about 55,000 psi** as measured by ATM Method D-790. (Standard resins are referred to as "hard Surlyns" in U.S. Patent No. 4,884,814.)" (Proudfit (Ex. 5), col. 5, line 66-col. 6, line 1.) "Specific **standard Surlyn resins** which can be used in the **inner layer include 8940 (sodium), 9910 (zinc)** …." (Proudfit (Ex. 5), col. 6, lines 6-7.) "The **composition of the inner cover layer** is described in Table 6."

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Claim 4	**Proudfit and Molitor '637**
	TABLE 6 Composition of Inner Layer of Cover (Parts by Weight) Ionomer Type — Blend Ratio Sodium- Surlyn 8940 — 75% Zinc- Surlyn 9910 — 25% (Proudfit (Ex. 5), col. 8, lines 22-30.) Surlyn 8940 has a flexural modulus of **51,000 psi** (CW 00512231 (Ex. 45), while Surlyn 9910 has a flexural modulus of **48,000 psi** (*Id.*)
an outer cover layer having	"… an **outer layer of soft material** such as balata or a blend of balata and other elastomers." Proudfit (Ex. 5), (col. 5, lines 15-17.)
a Shore D hardness of about 64 or less	"… an **outer layer of soft material** such as balata or a blend of balata and other elastomers." (Proudfit (Ex. 5), col. 5, lines 15-17.) Balata has a Shore D hardness of less than 64. (*See* Decl. of Edmund A. Hebert (Ex. 25) at ¶ 7; Nesbitt Depo. Trans. (Ex. 16) at 121:2—121:5.). The Wilson Ultra Tour Balata Ball, which is made according to the Proudfit patent (*See* CW 0302942-47 (Ex. 47)) has a Shore D hardness of less than 64 when measured on the ball. (*See* AC 0131413 (Ex. 34).) **Molitor '637**: Teaches the use of **Estane 58133** in Examples 16 and 17. (Molitor '637, col. 18.) Estane is a soft polyurethane material that has a **Shore D hardness of 55 as measured "off the ball**." (CW 00615792 (Ex. 46).) **ON THE BALL** When measured **on the ball of Proudfit** Molitor '637's outer cover layer has a Shore D hardness of **59.4**. (MacKnight Decl. (Ex. 30) at ¶ 33.)

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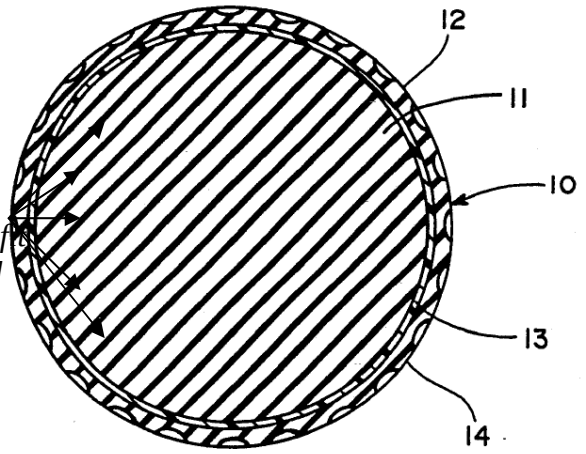
Claim 4	**Proudfit and Molitor '637**
disposed about said inner cover layer and defining a plurality of dimples to form a multi-layer golf ball	Fig. 1  *[plurality of dimples Proudfit (Ex. 5), Fig 1.]*
said outer layer comprising a polyurethane based material.	"… an **outer layer** of soft material such as **balata or a blend of balata and other elastomers**." (Proudfit (Ex. 5), col. 5, lines 15-17.) **Molitor '637**: Estane 58133 is a relatively soft polyurethane material. (Molitor '637 (Ex. 12), col. 18.)

Claim 5	**Proudfit and Molitor '637**
A golf ball according to claim 4	See above.
wherein said inner cover layer has a thickness of about 0.100 to about 0.010 inches	"The **thickness of the inner layer can be** within the range of about **0.0250 to 0.2875 inch** to provide a total diameter of the inner layer and core within the range of about 1.550 to 1.590 inch." (Proudfit (Ex. 5), col. 7, lines 37-40.) "The preferred dimensions are … an **inner layer thickness of 0.037 inch**…." (Proudfit (Ex. 5), col. 7, lines 43-44.)
and said outer cover layer has a thickness of about 0.010 to about 0.010 inches,	"The **thickness of the outer layer can be** within the range of about **0.0450 to 0.0650 inch** to provide a total ball diameter of 1.680 inch. The preferred dimensions are … an **outer layer thickness of 0.0525 inch**…." (Proudfit (Ex. 5), col. 7, lines 40-46.)
said golf ball having an overall diameter of 1.680 inches or more.	"The preferred dimensions are a core diameter of 1.500 inch, and inner layer thickness of 0.037 inch (inner layer diameter of 1.575 inch), and an outer layer thickness of 0.0525 inch **(total ball diameter of 1.680 inch)**." (Proudfit (Ex. 5), col. 7, lines 43-47.)

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PROUDFIT AND WU

Claim 1	Proudfit and Wu
A golf ball comprising:	"This **invention relates to golf balls**, and more particularly, to a golf ball having a two-layer cover." (Proudfit (Ex. 5), col. 1, lines 11-12.)
a core;	"FIG. 1 illustrates a two-piece golf ball 10 which includes a **solid core 11** and a cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins and a relatively soft outer layer 14 of polymeric material." (Proudfit (Ex. 5), col. 7, lines 21-24.) "Two specific **solid core compositions** used with the new two-layer cover had the composition described in Table 1. **One core** was used in a golf ball which was designated as a 90 compression ball, and **the other core** was used in a golf ball which was designated as a 100 compression ball." (Proudfit (Ex. 5), col. 7, lines 51-55.)
an inner cover layer having …	"FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a **cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins** and a relatively soft outer layer 14 of polymeric material." (Proudfit (Ex. 5), col. 7, lines 21-24.)
a Shore D hardness of 60 or more molded on said core,	"The composition of the inner cover layer is described in Table 6." TABLE 6 Composition of Inner Layer of Cover (Parts by Weight) Ionomer Type — Blend Ratio Sodium- Surlyn 8940 — 75% Zinc- Surlyn 9910 — 25% (col. 8, lines 22-30.) Surlyn® 8940 has a Shore D hardness of 66; Surlyn® 9910 has a Shore D hardness of 64 (CW 00512231 (Ex. 45).) Therefore, this cover blend has a hardness of 60 or more when measured off the ball, specifically 64.7. (*See* "Blend 2" described in AC 0131414 (Ex. 34).) "The inner layer can be molded in one of two methods: 1. Injection molded over the core in a manner which is conventionally used to injection mold ionomers over a solid core. 2. Injection mold halfshells, place halfshells over the core, compression mold the inner cover over the core." (Proudfit (Ex.

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Claim 1	**Proudfit and Wu**
	5), col. 8, lines 32-38.)
said inner cover layer having a thickness of 0.100 to 0.010 inches,	"The **thickness of the inner layer can be** within the range of about **0.0250 to 0.2875 inch** to provide a total diameter of the inner layer and core within the range of about 1.550 to 1.590 inch." (Proudfit (Ex. 5), col. 7, lines 37-40.) "The preferred dimensions are … and **inner layer thickness of 0.037 inch**…." (Proudfit (Ex. 5), col. 7, lines 43-44.)
said inner cover layer comprising a blend of two or more low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid; and	"The composition of the inner cover layer is described in Table 6." TABLE 6 Composition of Inner Layer of Cover (Parts by Weight) Ionomer Type — Blend Ratio Sodium- Surlyn 8940 — 75% Zinc- Surlyn 9910 — 25% (Proudfit (Ex. 5), col. 8, lines 22-30.) Surlyn® 8940 and Surlyn® 9910 are both low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid. (*See* '293 patent (Ex. 1), col. 8, lines 20-27.)
an outer cover layer having …	"FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a **cover 12 which comprises** a relatively hard inner layer 13 of one or more ionomer resins and **a relatively soft outer layer 14 of polymeric material.**" (Proudfit (Ex. 5), col. 7, lines 21-24.)
a Shore D hardness of 64 or less molded on said inner cover layer,	"… an **outer layer of soft material** such as balata or a blend of balata and other elastomers." (col. 5, lines 15-17.) Balata has a Shore D hardness of less than 64. (*See* Decl. of Edmund A. Hebert (Ex. 25) at ¶ 7; Nesbitt Depo. Trans. (Ex. 16) at 121:2—121:5.). The Wilson Ultra Tour Balata Ball, which is made according to the Proudfit patent (*See* CW 0302942-47 (Ex. 47)) has a Shore D hardness of less than 64 when measured on the ball. (*See* AC 0131413 (Ex. 34).) **Wu** **ON THE BALL** Wu's polyurethane has a Shore D hardness of 56.8 when measured on Proudfit's ball. (MacKnight Decl. (Ex. 30) at ¶ 33.) **OFF THE BALL** Off the ball measurements of polyurethanes are lower than on the ball measurements (Wu Depo. Trans. (Ex. 33) at 60:14—60:24.) This material had a Shore D hardness of **51.6** when measured "off the ball." (*See* AC0131414 (Ex. 34) showing measurements of

Claim 1	**Proudfit and Wu**
	MDI prepolymer.)
said outer cover layer having a thickness of 0.010 to 0.070 inches, and	"The **thickness of the outer layer can be** within the range of about **0.0450 to 0.0650 inch** to provide a total ball diameter of 1.680 inch. The preferred dimensions are … an **outer layer thickness of 0.0525 inch**…." (Proudfit (Ex. 5), col. 7, lines 40-46.)
said outer cover layer comprising a relatively soft polyurethane material.	"… an **outer layer** of soft material such as balata or **a blend of balata and other elastomers**." (Proudfit (Ex. 5), col. 5, lines 15-17.) **Wu** Wu discloses a golf ball cover formulation comprising a polyurethane. (Proudfit (Ex. 5), Table 1; col. 7, line 10—col. 8, ll. 35; claim 1.)

Claim 2	**Proudfit and Wu**
The golf ball according to claim 1,	See above.
wherein said golf ball has an overall diameter of 1.680 inches or more.	"The preferred dimensions are a core diameter of 1.500 inch, and inner layer thickness of 0.037 inch (inner layer diameter of 1.575 inch), and an outer layer thickness of 0.0525 inch **(total ball diameter of 1.680 inch)**." (Proudfit (Ex. 5), col. 7, lines 43-47.)

Claim 4	**Proudfit and Wu**
A multi-layer golf-ball comprising:	"This **invention relates to golf balls**, and more particularly, to a golf ball having a **two-layer cover**." (Proudfit (Ex. 5), col. 1, lines 11-12.)
a spherical core;	"FIG. 1 illustrates a two-piece golf ball 10 which includes a **solid core 11** and a cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins and a relatively soft outer layer 14 of polymeric material." (Proudfit (Ex. 5), col. 7, lines 21-24; FIGS 1, 2.) "Two specific **solid core compositions** used with the new two-layer cover had the composition described in Table 1. **One core** was used in a golf ball which was designated as a 90 compression ball, and **the other core** was used in a golf ball which was designated as a 100 compression ball." (Proudfit (Ex. 5), col. 7, lines 51-55.)
an inner cover layer having …	"FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a **cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins** and a relatively soft outer layer 14 of polymeric material." (Proudfit (Ex. 5), col. 7,

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Claim 4	Proudfit and Wu
	lines 21-24.)
a Shore D hardness of 60 or more molded over said spherical core	"The composition of the inner cover layer is described in Table 6." TABLE 6 Composition of Inner Layer of Cover (Parts by Weight) Ionomer Type — Blend Ratio Sodium- Surlyn 8940 — 75% Zinc- Surlyn 9910 — 25% (Proudfit (Ex. 5), col. 8, lines 22-30.) Surlyn® 8940 has a Shore D hardness of 66; Surlyn® 9910 has a Shore D hardness of 64 (CW 00512231.) Therefore, this cover blend has a hardness of 60 or more when measured off the ball, specifically 64.7. (*See* "Blend 2" described in AC 0131414 (Ex. 34).) "The inner layer can be molded in one of two methods: 1. **Injection molded** over the core in a manner which is conventionally used to injection mold ionomers over a solid core. 2. Injection mold halfshells, place halfshells over the core, **compression mold the inner cover over the core**." (Proudfit (Ex. 5), col. 8, lines 32-38.)
said inner cover layer comprising an ionomeric resin including no more than 16% by weight of alpha, beta-unsaturated carboxylic acid	"The composition of the inner cover layer is described in Table 6." TABLE 6 Composition of Inner Layer of Cover (Parts by Weight) Ionomer Type — Blend Ratio Sodium- Surlyn 8940 — 75% Zinc- Surlyn 9910 — 25% (Proudfit (Ex. 5), col. 8, lines 22-30.) Surlyn® 8940 and Surlyn® 9910 are both low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid.
and having a modulus of from about 15,000 to about 70,000 psi	"The **standard resins have a flexural modulus in the range of about 30,000 to about 55,000 psi** as measured by ATM Method D-790. (Standard resins are referred to as "hard Surlyns" in U.S. Patent No. 4,884,814.)" (Proudfit (Ex. 5), col. 5, line 66-col. 6, line 1.) "Specific **standard Surlyn resins** which can be used in the **inner layer include 8940 (sodium), 9910 (zinc)** …." (Proudfit (Ex. 5), col. 6, lines 6-7.)

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Claim 4	Proudfit and Wu
	"The **composition of the inner cover layer** is described in Table 6." TABLE 6 Composition of Inner Layer of Cover (Parts by Weight) Ionomer Type — Blend Ratio Sodium- Surlyn 8940 — 75% Zinc- Surlyn 9910 — 25% (Proudfit (Ex. 5), col. 8, lines 22-30.) Surlyn 8940 has a flexural modulus of **51,000 psi** (CW 00512231 (Ex. 45), while Surlyn 9910 has a flexural modulus of **48,000 psi** (*Id.*)
an outer cover layer having	"… an **outer layer of soft material** such as balata or a blend of balata and other elastomers." (Proudfit (Ex. 5), col. 5, lines 15-17.)
a Shore D hardness of about 64 or less	"… an **outer layer of soft material** such as balata or a blend of balata and other elastomers." (Proudfit (Ex. 5), col. 5, lines 15-17.) Balata has a Shore D hardness of less than 64. (*See* Decl. of Edmund A. Hebert (Ex. 25) at ¶ 7; Nesbitt Depo. Trans. (Ex. 16) at 121:2—121:5.). The Wilson Ultra Tour Balata Ball, which is made according to the Proudfit patent (*See* CW 0302942-47 (Ex. 47)) has a Shore D hardness of less than 64 when measured on the ball. (*See* AC 0131413 (Ex. 34).) **Wu** **ON THE BALL** Wu's polyurethane has a Shore D hardness of 55.6 when measured on Nesbitt's ball. (MacKnight Decl. (Ex. 30) at ¶ 33.) **OFF THE BALL** Off the ball measurements of polyurethanes are lower than on the ball the measurements (Wu Depo. Trans. (Ex. 33) at 60:14—60:24.) This material had a Shore D hardness of **51.6** when measured "off the ball." (*See* AC0131414 (Ex. 34) showing measurements of MDI prepolymer.)

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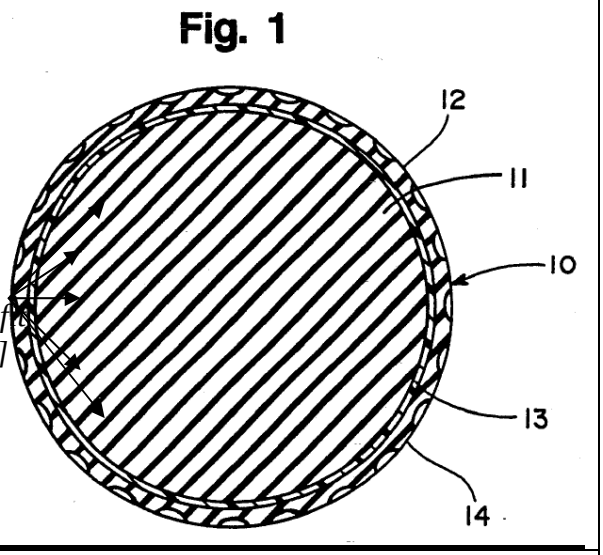
Claim 4	**Proudfit and Wu**
disposed about said inner cover layer and defining a plurality of dimples to form a multi-layer golf ball	*[plurality of dimples Proudfit (Ex. 5) Fig. 1]]* 
said outer layer comprising polyurethane.	"… an **outer layer** of soft material such as **balata or a blend of balata and other elastomers**." (Proudfit (Ex. 5), col. 5, lines 15-17.) **Wu** Wu discloses a golf ball cover formulation comprising a polyurethane. (Wu (Ex. 8) Table 1; col. 7, line 10—col. 8, ll. 35; claim 1.)

Claim 5	**Proudfit and Wu**
A golf ball according to claim 4	See above.
wherein said inner cover layer has a thickness of about 0.100 to about 0.010 inches	"The **thickness of the inner layer can be** within the range of about **0.0250 to 0.2875 inch** to provide a total diameter of the inner layer and core within the range of about 1.550 to 1.590 inch." (Proudfit (Ex. 5), col. 7, lines 37-40.) "The preferred dimensions are … an **inner layer thickness of 0.037 inch**…." (Proudfit (Ex. 5), col. 7, lines 43-44.)
and said outer cover layer has a thickness of about 0.010 to about 0.010 inches,	"The **thickness of the outer layer can be** within the range of about **0.0450 to 0.0650 inch** to provide a total ball diameter of 1.680 inch. The preferred dimensions are … an **outer layer thickness of 0.0525 inch**…." (Proudfit (Ex. 5), col. 7, lines 40-46.)
said golf ball having an overall diameter of 1.680 inches or more.	"The preferred dimensions are a core diameter of 1.500 inch, and inner layer thickness of 0.037 inch (inner layer diameter of 1.575 inch), and an outer layer thickness of 0.0525 inch **(total ball diameter of 1.680 inch)**." (Proudfit (Ex. 5), col. 7, lines 43-47.)

PROUDFIT AND MOLITOR '751

Claim 1	**Proudfit and Molitor '751**
A golf ball comprising:	"This **invention relates to golf balls**, and more particularly, to a golf ball having a two-layer cover." (Proudfit (Ex. 5), col. 1, lines 11-12.)
a core;	"FIG. 1 illustrates a two-piece golf ball 10 which includes a **solid core 11** and a cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins and a relatively soft outer layer 14 of polymeric material." (Proudfit (Ex. 5), col. 7, lines 21-24.) "Two specific **solid core compositions** used with the new two-layer cover had the composition described in Table 1. **One core** was used in a golf ball which was designated as a 90 compression ball, and **the other core** was used in a golf ball which was designated as a 100 compression ball." (Proudfit (Ex. 5), col. 7, lines 51-55.)
an inner cover layer having …	"FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a **cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins** and a relatively soft outer layer 14 of polymeric material." (Proudfit (Ex. 5), col. 7, lines 21-24.)
a Shore D hardness of 60 or more molded on said core,	"The composition of the inner cover layer is described in Table 6." TABLE 6 Composition of Inner Layer of Cover (Parts by Weight) Ionomer Type — Blend Ratio Sodium- Surlyn 8940 — 75% Zinc- Surlyn 9910 — 25% (col. 8, lines 22-30.) Surlyn® 8940 has a Shore D hardness of 66; Surlyn® 9910 has a Shore D hardness of 64 (CW 00512231.) Therefore, this cover blend has a hardness of 60 or more when measured off the ball, specifically 64.7. (*See* "Blend 2" described in AC 0131414 (Ex. 34.) "The inner layer can be molded in one of two methods: 1. Injection molded over the core in a manner which is conventionally used to injection mold ionomers over a solid core. 2. Injection mold halfshells, place halfshells over the core,

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Claim 1	**Proudfit and Molitor '751**
	compression mold the inner cover over the core." (Proudfit (Ex. 5), col. 8, lines 32-38.)
said inner cover layer having a thickness of 0.100 to 0.010 inches,	"The **thickness of the inner layer can be** within the range of about **0.0250 to 0.2875 inch** to provide a total diameter of the inner layer and core within the range of about 1.550 to 1.590 inch." (Proudfit (Ex. 5), col. 7, lines 37-40.) "The preferred dimensions are … and **inner layer thickness of 0.037 inch**…." (Proudfit (Ex. 5), col. 7, lines 43-44.)
said inner cover layer comprising a blend of two or more low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid; and	"The composition of the inner cover layer is described in Table 6." **TABLE 6** **Composition of Inner Layer of Cover (Parts by Weight)** **Ionomer Type** — **Blend Ratio** Sodium- Surlyn 8940 — 75% Zinc- Surlyn 9910 — 25% (Proudfit (Ex. 5), col. 8, lines 22-30.) Surlyn® 8940 and Surlyn® 9910 are both low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid. (*See* '293 patent (Ex. 1), col. 8, lines 20-27.)
an outer cover layer having …	"FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a **cover 12 which comprises** a relatively hard inner layer 13 of one or more ionomer resins and **a relatively soft outer layer 14 of polymeric material.**" (Proudfit (Ex. 5), col. 7, lines 21-24.)
a Shore D hardness of 64 or less molded on said inner cover layer,	"… an **outer layer of soft material** such as balata or a blend of balata and other elastomers." (Proudfit (Ex. 5), col. 5, lines 15-17.) Balata has a Shore D hardness of less than 64. (*See* Decl. of Edmund A. Hebert (Ex. 25) at ¶ 7; Nesbitt Depo. Trans. (Ex. 16) at 121:2—121:5.) The Wilson Ultra Tour Balata Ball, which is made according to the Proudfit patent (*See* CW 0302942-47 (Ex. 47)) has a Shore D hardness of less than 64 when measured on the ball. (*See* AC 0131413 (Ex. 34).) **Molitor '751:** **ON THE BALL** Molitor '751 discloses the following blend as the most preferred ((Ex. 13), col. 7, line 25, Table):

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<table>
<tr><th>Claim 1</th><th>Proudfit and Molitor ‘751</th></tr>
<tr><td></td><td>
<table>
<tr><th>Material</th><th>Parts</th></tr>
<tr><td>Texin 480 AR (now 285)</td><td>90</td></tr>
<tr><td>Surlyn 1605 (now 8940)</td><td>10</td></tr>
<tr><td>TiO2</td><td>5</td></tr>
<tr><td>Fluorescent Brightener</td><td>0.10</td></tr>
<tr><td>Antioxidant</td><td>0.17</td></tr>
<tr><td>Pigment</td><td>0.02</td></tr>
<tr><td>Release Agent</td><td>1</td></tr>
</table>
When measured on Proudfit’s ball, this cover has a Shore D hardness of hardness of 49.6. (MacKnight Decl. (Ex. 30) at ¶ 33).

<u>OFF THE BALL</u>
When measured off the ball, this formulation had a Shore D hardness of 39.5 (See “Texin Blend” average Shore D hardness at AC 0131414 (Ex. 34).)</td></tr>
<tr><td>said outer cover layer having a thickness of 0.010 to 0.070 inches, and</td><td>“The thickness of the outer layer can be within the range of about 0.0450 to 0.0650 inch to provide a total ball diameter of 1.680 inch. The preferred dimensions are … an outer layer thickness of 0.0525 inch….” (Proudfit (Ex. 5), col. 7, lines 40-46.)</td></tr>
<tr><td>said outer cover layer comprising a relatively soft polyurethane material.</td><td>“… an outer layer of soft material such as balata or a blend of balata and other elastomers.” (Proudfit (Ex. 5), col. 5, lines 15-17.)
<u>Molitor ‘751:</u>
“The preferred components of the cover material comprise a thermoplastic polyurethane . . . .” (Molitor ‘751 (Ex. 13), col. 3, lines 6-7.)</td></tr>
</table>

Claim 2	Proudfit and Molitor ‘751
The golf ball according to claim 1,	See above.
wherein said golf ball has an overall diameter of 1.680	“The preferred dimensions are a core diameter of 1.500 inch, and inner layer thickness of 0.037 inch (inner layer diameter of 1.575

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Claim 2	**Proudfit and Molitor '751**
inches or more.	inch), and an outer layer thickness of 0.0525 inch **(total ball diameter of 1.680 inch)**." (Proudfit (Ex. 5), col. 7, lines 43-47.)

Claim 4	**Proudfit and Molitor '751**
A multi-layer golf-ball comprising:	"This **invention relates to golf balls**, and more particularly, to a golf ball having a **two-layer cover**." (Proudfit (Ex. 5), col. 1, lines 11-12.)
a spherical core;	"FIG. 1 illustrates a two-piece golf ball 10 which includes a **solid core 11** and a cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins and a relatively soft outer layer 14 of polymeric material." (Proudfit (Ex. 5), col. 7, lines 21-24; FIGS 1, 2.) "Two specific **solid core compositions** used with the new two-layer cover had the composition described in Table 1. **One core** was used in a golf ball which was designated as a 90 compression ball, and **the other core** was used in a golf ball which was designated as a 100 compression ball." (Proudfit (Ex. 5), col. 7, lines 51-55.)
an inner cover layer having …	"FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a **cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins** and a relatively soft outer layer 14 of polymeric material." (Proudfit (Ex. 5), col. 7, lines 21-24.)
a Shore D hardness of 60 or more molded over said spherical core	"The composition of the inner cover layer is described in Table 6." TABLE 6 Composition of Inner Layer of Cover (Parts by Weight) Ionomer Type — Blend Ratio Sodium- Surlyn 8940 — 75% Zinc- Surlyn 9910 — 25% (Proudfit (Ex. 5), col. 8, lines 22-30.) Surlyn® 8940 has a Shore D hardness of 66; Surlyn® 9910 has a Shore D hardness of 64 (CW 00512231.) Therefore, this cover blend has a hardness of 60 or more when measured off the ball, specifically 64.7. (*See* "Blend 2" described in AC 0131414 (Ex. 34).) "The inner layer can be molded in one of two methods: 1. **Injection molded** over the core in a manner which is conventionally used to injection mold ionomers over a solid core. 2. Injection mold halfshells, place halfshells over the core,

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Claim 4	Proudfit and Molitor '751
	compression mold the inner cover over the core." (Proudfit (Ex. 5), col. 8, lines 32-38.)
said inner cover layer comprising an ionomeric resin including no more than 16% by weight of alpha, beta-unsaturated carboxylic acid	"The composition of the inner cover layer is described in Table 6." TABLE 6 Composition of Inner Layer of Cover (Parts by Weight) Ionomer Type — Blend Ratio Sodium- Surlyn 8940 — 75% Zinc- Surlyn 9910 — 25% (Proudfit (Ex. 5), col. 8, lines 22-30.) Surlyn® 8940 and Surlyn® 9910 are both low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid. (*See* '293 patent (Ex. 1), col. 8, lines 20-27.)
and having a modulus of from about 15,000 to about 70,000 psi	"The **standard resins have a flexural modulus in the range of about 30,000 to about 55,000 psi** as measured by ATM Method D-790. (Standard resins are referred to as "hard Surlyns" in U.S. Patent No. 4,884,814.)" (Proudfit (Ex. 5), col. 5, line 66-col. 6, line 1.) "Specific **standard Surlyn resins** which can be used in the **inner layer include 8940 (sodium), 9910 (zinc)** …." (Proudfit (Ex. 5), col. 6, lines 6-7.) "The **composition of the inner cover layer** is described in Table 6." TABLE 6 Composition of Inner Layer of Cover (Parts by Weight) Ionomer Type — Blend Ratio Sodium- Surlyn 8940 — 75% Zinc- Surlyn 9910 — 25% (Proudfit (Ex. 5), col. 8, lines 22-30.) Surlyn 8940 has a flexural modulus of **51,000 psi** (CW 00512231 (Ex. 45)), while Surlyn 9910 has a flexural modulus of **48,000 psi** (*Id.*)
an outer cover layer having	"… an **outer layer of soft material** such as balata or a blend of balata and other elastomers." (Proudfit (Ex. 5), col. 5, lines 15-17.)
a Shore D hardness of about 64 or less	"… an **outer layer of soft material** such as balata or a blend of balata and other elastomers." (Proudfit (Ex. 5), col. 5, lines 15-17.) Balata has a Shore D hardness of less than 64. (*See* Decl. of Edmund A. Hebert (Ex. 25) at ¶ 7; Nesbitt Depo. Trans. (Ex. 16) at 121:2—121:5.)

<table>
<tr><th>Claim 4</th><th>Proudfit and Molitor ‘751</th></tr>
<tr><td></td><td>
The Wilson Ultra Tour Balata Ball, which is made according to the Proudfit patent (See CW 0302942-47) has a Shore D hardness of less than 64 when measured on the ball. (See AC 0131413.)
<u>Molitor ‘751:</u>
<u>ON THE BALL</u>
Molitor ‘751 discloses the following blend as the most preferred (Ex. 13), col. 7, line 25, Table):
<table>
<tr><th>Material</th><th>Parts</th></tr>
<tr><td>Texin 480 AR (now 285)</td><td>90</td></tr>
<tr><td>Surlyn 1605 (now 8940)</td><td>10</td></tr>
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<tr><td>Release Agent</td><td>1</td></tr>
</table>
When measured on Proudfit’s ball, this cover has a Shore D hardness of hardness of 49.6. (MacKnight Decl. (Ex. 30) at ¶ 33).
<u>OFF THE BALL</u>
When measured off the ball, this formulation had a Shore D hardness of 39.5 (See “Texin Blend” average Shore D hardness at AC 0131414 (Ex. 34).)
</td></tr>
</table>

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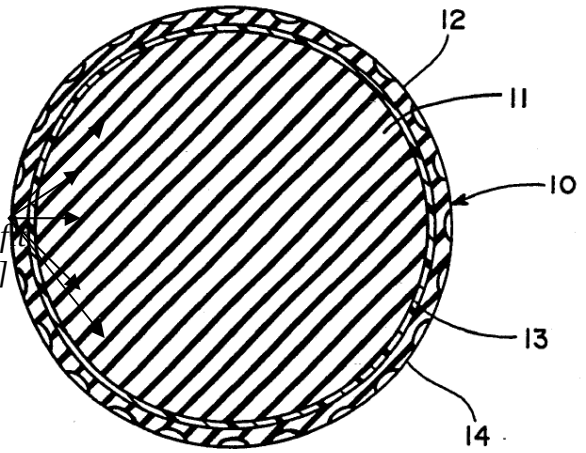
Claim 4	**Proudfit and Molitor '751**
disposed about said inner cover layer and defining a plurality of dimples to form a multi-layer golf ball	*[[plurality of dimples Proudfit (Ex. 5) Fig. 1]]* Fig. 1 
said outer layer comprising a polyurethane based material.	"… an **outer layer** of soft material such as **balata or a blend of balata and other elastomers**." (col. 5, lines 15-17.) **Molitor '751:** "The preferred components of the cover material comprise a thermoplastic polyurethane . . . ." (Molitor '751 (Ex. 13), col. 3, lines 6-7.)

Claim 5	**Proudfit**
A golf ball according to claim 4	See above.
wherein said inner cover layer has a thickness of about 0.100 to about 0.010 inches	"The **thickness of the inner layer can be** within the range of about **0.0250 to 0.2875 inch** to provide a total diameter of the inner layer and core within the range of about 1.550 to 1.590 inch." (Proudfit (Ex. 5), col. 7, lines 37-40.) "The preferred dimensions are … an **inner layer thickness of 0.037 inch**…." (Proudfit (Ex. 5), col. 7, lines 43-44.)
and said outer cover layer has a thickness of about 0.010 to about 0.010 inches,	"The **thickness of the outer layer can be** within the range of about **0.0450 to 0.0650 inch** to provide a total ball diameter of 1.680 inch. The preferred dimensions are … an **outer layer thickness of 0.0525 inch**…." (Proudfit (Ex. 5), col. 7, lines 40-46.)
said golf ball having an overall diameter of 1.680 inches or more.	"The preferred dimensions are a core diameter of 1.500 inch, and inner layer thickness of 0.037 inch (inner layer diameter of 1.575 inch), and an outer layer thickness of 0.0525 inch **(total ball diameter of 1.680 inch)**." (Proudfit (Ex. 5), col. 7, lines 43-47.)

EXHIBIT B

Invalidity Charts for U.S. Patent No. 6,506,130

PROUDFIT

Claim 1	**Proudfit**
A golf ball comprising:	"This **invention relates to golf balls**, and more particularly, to a golf ball having a two-layer cover." (Proudfit (Ex. 5), col. 1, lines 11-12.)
a core;	"FIG. 1 illustrates a two-piece golf ball 10 which includes a **solid core 11** and a cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins and a relatively soft outer layer 14 of polymeric material." (Proudfit (Ex. 5), col. 7, lines 21-24.) "Two specific **solid core compositions** used with the new two-layer cover had the composition described in Table 1. **One core** was used in a golf ball which was designated as a 90 compression ball, and **the other core** was used in a golf ball which was designated as a 100 compression ball." (Proudfit (Ex. 5), col. 7, lines 51-55.)
an inner cover layer having …	"FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a **cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins** …." (Proudfit (Ex. 5), col. 7, lines 21-24.)
a Shore D hardness of 60 or more molded on said core,	"The composition of the inner cover layer is described in Table 6." TABLE 6 Composition of Inner Layer of Cover (Parts by Weight) Ionomer Type — Blend Ratio Sodium- Surlyn 8940 — 75% Zinc- Surlyn 9910 — 25% (Proudfit (Ex. 5), col. 8, lines 22-30.) Surlyn® 8940 has a Shore D hardness of 66; Surlyn® 9910 has a Shore D hardness of 64 (CW 00512231 (Ex. 45).) Therefore, this cover blend has a hardness of 60 or more when measured off the ball, specifically 64.7. (*See* "Blend 2" described in AC 0131414 (Ex. 34).) "The inner layer can be molded in one of two methods: 1. Injection molded over the core in a manner which is conventionally used to injection mold ionomers over a solid core. 2. Injection mold halfshells, place halfshells over the core, compression mold the inner cover over the core." (Proudfit (Ex. 5), col. 8, lines 32-38.)

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Claim 1	Proudfit
	This cover blend has a hardness of 60 or more measured on the ball. (*See* Decl. Edmund A. Hebert (Ex. 25), ¶¶ 8-9.)
said inner cover layer comprising a blend of two or more low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid; and	"The composition of the inner cover layer is described in Table 6." TABLE 6 Composition of Inner Layer of Cover (Parts by Weight) Ionomer Type — Blend Ratio Sodium- Surlyn 8940 — 75% Zinc- Surlyn 9910 — 25% (col. 8, lines 22-30.) Surlyn® 8940 and Surlyn® 9910 are both low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid. (*See* '293 patent (Ex. 1), col. 8, lines 20-27.)
an outer cover layer having …	"FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a **cover 12 which comprises** … **a relatively soft outer layer 14 of polymeric material.**" (Proudfit (Ex. 5), col. 7, lines 21-24.)
a Shore D hardness of 64 or less molded on said inner cover layer,	"… an **outer layer of soft material** such as balata or a blend of balata and other elastomers." (Proudfit (Ex. 5), col. 5, lines 15-17.) Balata has a Shore D hardness of less than 64. (*See* Decl. of Edmund A. Hebert (Ex. 25) at ¶ 7; Nesbitt Depo. Trans. (Ex. 16) at 121:2—121:5.). The Wilson Ultra Tour Balata Ball, which is made according to the Proudfit patent (*See* CW 0302942-47 (Ex. 47)) has a Shore D hardness of less than 64 when measured on the ball. (*See* AC 0131413 (Ex. 34).)
said outer cover layer comprising a relatively soft polymeric material selected from the group consisting of non-ionomeric thermoplastic and thermosetting elastomers.	"A golf ball cover in accordance with the invention includes … an outer layer **of soft material such as balata or a blend of balata and other elastomers. Preferably, the outer layer is a blend of balata and a thermally crosslinkable elastomer such as polybutadiene.** The balata and elastomer are crosslinked during the molding of the ball by a crosslinker such as zinc diacrylate and a crosslinking initiator such as organic peroxide rather than using the conventional sulfur and RR2 crystals curing system for balata covers. The outer layer of the cover is completely crosslinked when the ball is removed from the mold, and subsequent processing steps can be performed in the same manner as on Surlyn covered balls." (Proudfit (Ex. 5), col. 5,

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Claim 1	**Proudfit**
	lines 17-27.)

Claim 2	**Proudfit**
A golf ball according to claim 1,	See above.
wherein the inner cover layer has a thickness of about 0.100 to about 0.010 inches	"The **thickness of the inner layer can be** within the range of about **0.0250 to 0.2875 inch** to provide a total diameter of the inner layer and core within the range of about 1.550 to 1.590 inch." (Proudfit (Ex. 5), col. 7, lines 37-40.) "The preferred dimensions are … an **inner layer thickness of 0.037 inch**…." (Proudfit (Ex. 5), col. 7, lines 43-44.)
and the outer cover layer has a thickness of about 0.010 to about 0.070 inches,	"The **thickness of the outer layer can be** within the range of about **0.0450 to 0.0650 inch** to provide a total ball diameter of 1.680 inch. The preferred dimensions are … an **outer layer thickness of 0.0525 inch**…." (Proudfit (Ex. 5), col. 7, lines 40-46.)
the golf ball having the properties required by the U.S.G.A. and having an overall diameter of 1.680 inches or more.	"The preferred dimensions are a core diameter of 1.500 inch, and inner layer thickness of 0.037 inch (inner layer diameter of 1.575 inch), and an outer layer thickness of 0.0525 inch **(total ball diameter of 1.680 inch)**." (Proudfit (Ex. 5), col. 7, lines 43-47.)

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PROUDFIT AND MOLITOR '637

Claim 4	**Proudfit and Molitor '637**
A golf ball according to claim 1,	See above.
wherein the outer layer comprises a polyurethane material.	**Molitor '637**: Estane 58133 is a relatively soft polyurethane material. (Molitor '637 (Ex. 12), col. 18.)

Claim 5	**Proudfit and Molitor '637**
A multi-layer golf ball comprising:	"This **invention relates to golf balls**, and more particularly, to a golf ball having a **two-layer cover**." (Proudfit (Ex. 5), col. 1, lines 11-12.)
a spherical core;	"FIG. 1 illustrates a two-piece golf ball 10 which includes a **solid core 11** and a cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins and a relatively soft outer layer 14 of polymeric material." (Proudfit (Ex. 5), col. 7, lines 21-24; FIGS 1, 2.) "Two specific **solid core compositions** used with the new two-layer cover had the composition described in Table 1. **One core** was used in a golf ball which was designated as a 90 compression ball, and **the other core** was used in a golf ball which was designated as a 100 compression ball." (Proudfit (Ex. 5), col. 7, lines 51-55.)
an inner cover layer having …	"FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a **cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins** and a relatively soft outer layer 14 of polymeric material." (Proudfit (Ex. 5), col. 7, lines 21-24.)
a Shore D hardness of 60 or more molded over said spherical core	"The composition of the inner cover layer is described in Table 6." TABLE 6 Composition of Inner Layer of Cover (Parts by Weight) Ionomer Type / Blend Ratio Sodium- Surlyn 8940 — 75% Zinc- Surlyn 9910 — 25% (Proudfit (Ex. 5), col. 8, lines 22-30.) Surlyn® 8940 has a Shore D hardness of 66; Surlyn® 9910 has a Shore D hardness of 64 (CW 00512231 (Ex. 45).) Therefore, this cover blend has a hardness of 60 or more when measured off the ball, specifically 64.7. (*See* "Blend 2" described in AC 0131414 (Ex. 34).)

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Claim 5	**Proudfit and Molitor '637**
	"The inner layer can be molded in one of two methods: 1. Injection molded over the core in a manner which is conventionally used to injection mold ionomers over a solid core. 2. Injection mold halfshells, place halfshells over the core, compression mold the inner cover over the core." (Proudfit (Ex. 5), col. 8, lines 32-38.)
said inner cover layer comprising an ionomeric resin comprising no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid	"The composition of the inner cover layer is described in Table 6." **TABLE 6** Composition of Inner Layer of Cover (Parts by Weight) Ionomer Type — Blend Ratio Sodium- Surlyn 8940 — 75% Zinc- Surlyn 9910 — 25% (Proudfit (Ex. 5), col. 8, lines 22-30.) Surlyn® 8940 and Surlyn® 9910 are both low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid. (*See* '293 patent (Ex. 1), col. 8, lines 20-27.)
and having a modulus of from about 15,000 to about 70,000 psi;	D-790. (Standard resins are referred to as "hard Surlyns" in U.S. Patent No. 4,884,814.)" (Proudfit (Ex. 5), col. 5, line 66-col. 6, line 1.) "Specific **standard Surlyn resins** which can be used in the **inner layer include 8940 (sodium), 9910 (zinc)** …." (Proudfit (Ex. 5), col. 6, lines 6-7.) "The **composition of the inner cover layer** is described in Table 6." **TABLE 6** Composition of Inner Layer of Cover (Parts by Weight) Ionomer Type — Blend Ratio Sodium- Surlyn 8940 — 75% Zinc- Surlyn 9910 — 25% (Proudfit (Ex. 5), col. 8, lines 22-30.) Surlyn 8940 has a flexural modulus of **51,000 psi** (CW 00512231 (Ex. 45)), while Surlyn 9910 has a flexural modulus of **48,000 psi** (*Id.*) (Proudfit (Ex. 5), col. 8, lines 22-30.) Surlyn 8940 has a flexural modulus of **51,000 psi** (CW 00512231 (Ex. 45)), while Surlyn 9910 has a flexural modulus of **48,000 psi** (*Id.*) (col. 8, lines 22-30.) Therefore, the cover will inherently have a flexural modulus between 15,000 psi and 70,000 psi.
an outer cover layer having …	"… an **outer layer of soft material** such as balata or a blend of

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Claim 5	**Proudfit and Molitor '637**
	balata and other elastomers." (Proudfit (Ex. 5), col. 5, lines 15-17.)
a Shore D hardness of 64 or less	"… an **outer layer of soft material** such as balata or a blend of balata and other elastomers." (Proudfit (Ex. 5), col. 5, lines 15-17.) Balata has a Shore D hardness of less than 64. (*See* Decl. of Edmund A. Hebert (Ex. 25) at ¶ 7; Nesbitt Depo. Trans. (Ex. 16) at 121:2—121:5.). The Wilson Ultra Tour Balata Ball, which is made according to the Proudfit patent (*See* CW 0302942-47 (Ex. 47)) has a Shore D hardness of less than 64 when measured on the ball. (*See* AC 0131413 (Ex. 34).) **Molitor '637**: Teaches the use of **Estane 58133** in Examples 16 and 17. (Molitor '637 (Ex. 12), col. 18.) Estane is a soft polyurethane material that has a **Shore D hardness of 55 as measured "off the ball**." (CW 00615792 (ex. 46).) **ON THE BALL** When measured **on the ball of Proudfit** Molitor '637's outer cover layer has a Shore D hardness of **59.4**. (MacKnight Decl. (Ex. 30) at ¶ 33.)
molded over said spherical intermediate ball to form a multi-layer golf ball	"This **invention relates to golf balls**, and more particularly, to a golf ball having a **two-layer cover**." (Proudfit (Ex. 5), col. 1, lines 11-12.)
the outer cover layer comprising a polyurethane based material.	"… an **outer layer** of soft material such as balata or **a blend of balata and other elastomers**." (Proudfit (Ex. 5), col. 5, lines 15-17.) **Molitor '637**: Estane 58133 is a relatively soft polyurethane material. (Molitor '637 (Ex. 12), col. 18.)

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PROUDFIT AND WU

Claim 4	**Proudfit and Wu**
A golf ball according to claim 1,	See above.
wherein the outer layer comprises a polyurethane material.	**Wu** Wu discloses a golf ball cover formulation comprising a polyurethane. (Wu (Ex. 8), Table 1; col. 7, line 10—col. 8, ll. 35; claim 1.)

Claim 5	**Proudfit and Wu**
A multi-layer golf ball comprising:	"This **invention relates to golf balls**, and more particularly, to a golf ball having a **two-layer cover**." (Proudfit (Ex. 5), col. 1, lines 11-12.)
a spherical core;	"FIG. 1 illustrates a two-piece golf ball 10 which includes a **solid core 11** and a cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins and a relatively soft outer layer 14 of polymeric material." (Proudfit (Ex. 5), col. 7, lines 21-24; FIGS 1, 2.) "Two specific **solid core compositions** used with the new two-layer cover had the composition described in Table 1. **One core** was used in a golf ball which was designated as a 90 compression ball, and **the other core** was used in a golf ball which was designated as a 100 compression ball." (Proudfit (Ex. 5), col. 7, lines 51-55.)
an inner cover layer having …	"FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a **cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins** and a relatively soft outer layer 14 of polymeric material." (Proudfit (Ex. 5), col. 7, lines 21-24.)
a Shore D hardness of 60 or more molded over said spherical core	"The composition of the inner cover layer is described in Table 6." TABLE 6 Composition of Inner Layer of Cover (Parts by Weight) Ionomer Type — Blend Ratio Sodium- Surlyn 8940 — 75% Zinc- Surlyn 9910 — 25% (Proudfit (Ex. 5), col. 8, lines 22-30.) Surlyn® 8940 has a Shore D hardness of 66; Surlyn® 9910 has a Shore D hardness of 64 (CW 00512231 (Ex. 45).) Therefore, this cover blend has a hardness of 60 or more when measured off the

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<table>
<tr><th>Claim 5</th><th>Proudfit and Wu</th></tr>
<tr><td></td><td>ball, specifically 64.7. (See “Blend 2” described in AC 0131414 Ex. 34).)
“The inner layer can be molded in one of two methods:
1. Injection molded over the core in a manner which is conventionally used to injection mold ionomers over a solid core.
2. Injection mold halfshells, place halfshells over the core, compression mold the inner cover over the core.” (Proudfit (Ex. 5), col. 8, lines 32-38.)</td></tr>
<tr><td>said inner cover layer comprising an ionomeric resin comprising no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid</td><td>“The composition of the inner cover layer is described in Table 6.”
TABLE 6
Composition of Inner Layer of Cover (Parts by Weight)
Ionomer Type | Blend Ratio
Sodium- Surlyn 8940 | 75%
Zinc- Surlyn 9910 | 25%
(Proudfit (Ex. 5), col. 8, lines 22-30.) Surlyn® 8940 and Surlyn® 9910 are both low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid. (See ’293 patent (Ex. 1), col. 8, lines 20-27.)</td></tr>
<tr><td>and having a modulus of from about 15,000 to about 70,000 psi;</td><td>D-790. (Standard resins are referred to as “hard Surlyns” in U.S. Patent No. 4,884,814.)” (Proudfit (Ex. 5), col. 5, line 66-col. 6, line 1.)
“Specific standard Surlyn resins which can be used in the inner layer include 8940 (sodium), 9910 (zinc) ….” (Proudfit (Ex. 5), col. 6, lines 6-7.)
“The composition of the inner cover layer is described in Table 6.”
TABLE 6
Composition of Inner Layer of Cover (Parts by Weight)
Ionomer Type | Blend Ratio
Sodium- Surlyn 8940 | 75%
Zinc- Surlyn 9910 | 25%
(Proudfit (Ex. 5), col. 8, lines 22-30.) Surlyn 8940 has a flexural modulus of 51,000 psi (CW 00512231(Ex. 45)), while Surlyn 9910 has a flexural modulus of 48,000 psi (Id.)
(Proudfit (Ex. 5), col. 8, lines 22-30.) Surlyn 8940 has a flexural modulus of 51,000 psi (CW 00512231 (Ex. 45)), while Surlyn 9910 has a flexural modulus of 48,000 psi (Id.)
(Proudfit (Ex. 5), col. 8, lines 22-30.) Therefore, the cover will</td></tr>
</table>

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Claim 5	**Proudfit and Wu**
	inherently have a flexural modulus between 15,000 psi and 70,000 psi.
an outer cover layer having …	"… an **outer layer of soft material** such as balata or a blend of balata and other elastomers." (Proudfit (Ex. 5), col. 5, lines 15-17.)
a Shore D hardness of 64 or less	"… an **outer layer of soft material** such as balata or a blend of balata and other elastomers." (Proudfit (Ex. 5), col. 5, lines 15-17.) Balata has a Shore D hardness of less than 64. (*See* Decl. of Edmund A. Hebert (Ex. 25) at ¶ 7; Nesbitt Depo. Trans. (Ex. 16) at 121:2—121:5.). The Wilson Ultra Tour Balata Ball, which is made according to the Proudfit patent (*See* CW 0302942-47 (Ex. 47)) has a Shore D hardness of less than 64 when measured on the ball. (*See* AC 0131413 (Ex. 34).) **Wu** **ON THE BALL** Wu's polyurethane has a Shore D hardness of 56.8 when measured on Proudfit's ball. (MacKnight Decl. (Ex. 30) at ¶ 33.) **OFF THE BALL** Off the ball measurements of polyurethanes are lower than on the ball measurements (Wu Depo. Trans. (Ex. 33) at 60:14—60:24.) This material had a Shore D hardness of **51.6** when measured "off the ball." (*See* AC0131414 (Ex. 34) showing measurements of MDI prepolymer.)
molded over said spherical intermediate ball to form a multi-layer golf ball	"This **invention relates to golf balls**, and more particularly, to a golf ball having a **two-layer cover**." (Proudfit (Ex. 5), col. 1, lines 11-12.)
the outer cover layer comprising a polyurethane based material.	"… an **outer layer** of soft material such as balata or **a blend of balata and other elastomers**." (Proudfit (Ex. 5), col. 5, lines 15-17.) **Wu** Wu discloses a golf ball cover formulation comprising a polyurethane. (Wu (Ex.8), Table 1; col. 7, line 10—col. 8, ll. 35; claim 1.)

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PROUDFIT AND MOLITOR '751

Claim 4	**Proudfit and Molitor '751**
A golf ball according to claim 1,	See above.
wherein the outer layer comprises a polyurethane material.	**Molitor '751:** "The preferred components of the cover material comprise a thermoplastic polyurethane . . . ." (Molitor '751 (Ex. 13), col. 3, lines 6-7.)

Claim 5	**Proudfit and Molitor '751**
A multi-layer golf ball comprising:	"This **invention relates to golf balls**, and more particularly, to a golf ball having a **two-layer cover**." (Proudfit (Ex. 5), col. 1, lines 11-12.)
a spherical core;	"FIG. 1 illustrates a two-piece golf ball 10 which includes a **solid core 11** and a cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins and a relatively soft outer layer 14 of polymeric material." (Proudfit (Ex. 5), col. 7, lines 21-24; FIGS 1, 2.) "Two specific **solid core compositions** used with the new two-layer cover had the composition described in Table 1. **One core** was used in a golf ball which was designated as a 90 compression ball, and **the other core** was used in a golf ball which was designated as a 100 compression ball." (Proudfit (Ex. 5), col. 7, lines 51-55.)
an inner cover layer having …	"FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a **cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins** and a relatively soft outer layer 14 of polymeric material." (Proudfit (Ex. 5), col. 7, lines 21-24.)
a Shore D hardness of 60 or more molded over said spherical core	"The composition of the inner cover layer is described in Table 6." TABLE 6 Composition of Inner Layer of Cover (Parts by Weight) Ionomer Type — Blend Ratio Sodium- Surlyn 8940 — 75% Zinc- Surlyn 9910 — 25% (Proudfit (Ex. 5), col. 8, lines 22-30.) Surlyn® 8940 has a Shore D hardness of 66; Surlyn® 9910 has a Shore D hardness of 64 (CW 00512231 (Ex. 45).) Therefore, this cover blend has a hardness of 60 or more when measured off the

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Claim 5	**Proudfit and Molitor '751**
	ball, specifically 64.7. (*See* "Blend 2" described in AC 0131414 (Ex. 34).) "The inner layer can be molded in one of two methods: 1. Injection molded over the core in a manner which is conventionally used to injection mold ionomers over a solid core. 2. Injection mold halfshells, place halfshells over the core, compression mold the inner cover over the core." (Proudfit (Ex. 5), col. 8, lines 32-38.)
said inner cover layer comprising an ionomeric resin comprising no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid	"The composition of the inner cover layer is described in Table 6." TABLE 6 Composition of Inner Layer of Cover (Parts by Weight) Ionomer Type — Blend Ratio Sodium- Surlyn 8940 — 75% Zinc- Surlyn 9910 — 25% (Proudfit (Ex. 5), col. 8, lines 22-30.) Surlyn® 8940 and Surlyn® 9910 are both low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid. (*See* '293 patent (Ex. 1), col. 8, lines 20-27.)
and having a modulus of from about 15,000 to about 70,000 psi;	D-790. (Standard resins are referred to as "hard Surlyns" in U.S. Patent No. 4,884,814.)" (Proudfit (Ex. 5), col. 5, line 66-col. 6, line 1.) "Specific **standard Surlyn resins** which can be used in the **inner layer include 8940 (sodium), 9910 (zinc)** …." (Proudfit (Ex. 5), col. 6, lines 6-7.) "The **composition of the inner cover layer** is described in Table 6." TABLE 6 Composition of Inner Layer of Cover (Parts by Weight) Ionomer Type — Blend Ratio Sodium- Surlyn 8940 — 75% Zinc- Surlyn 9910 — 25% (Proudfit (Ex. 5), col. 8, lines 22-30.) Surlyn 8940 has a flexural modulus of **51,000 psi** (CW 00512231 (Ex. 45)), while Surlyn 9910 has a flexural modulus of **48,000 psi** (*Id.*) (Proudfit (Ex. 5), col. 8, lines 22-30.) Surlyn 8940 has a flexural modulus of **51,000 psi** (CW 00512231 (Ex. 45)), while Surlyn 9910 has a flexural modulus of **48,000 psi** (*Id.*) (Proudfit (Ex. 5), col. 8, lines 22-30.) Therefore, the cover will

<table>
<tr><th>Claim 5</th><th>Proudfit and Molitor ‘751</th></tr>
<tr><td></td><td>inherently have a flexural modulus between 15,000 psi and 70,000 psi.</td></tr>
<tr><td>an outer cover layer having …</td><td>“… an outer layer of soft material such as balata or a blend of balata and other elastomers.” (Proudfit (Ex. 5), col. 5, lines 15-17.)</td></tr>
<tr><td>a Shore D hardness of 64 or less</td><td>“… an outer layer of soft material such as balata or a blend of balata and other elastomers.” (Proudfit (Ex. 5), col. 5, lines 15-17.) Balata has a Shore D hardness of less than 64. (See Decl. of Edmund A. Hebert (Ex. 25) at ¶ 7; Nesbitt Depo. Trans. (Ex. 16) at 121:2—121:5.).

The Wilson Ultra Tour Balata Ball, which is made according to the Proudfit patent (See CW 0302942-47 (Ex. 47)) has a Shore D hardness of less than 64 when measured on the ball. (See AC 0131413 (Ex. 34).)

<u>Molitor ‘751:</u>
<u>ON THE BALL</u>

Molitor ‘751 discloses the following blend as the most preferred (Molitor ‘751 (Ex. 13), col. 7, line 25, Table):

<table><tr><th>Material</th><th>Parts</th></tr><tr><td>Texin 480 AR (now 285)</td><td>90</td></tr><tr><td>Surlyn 1605 (now 8940)</td><td>10</td></tr><tr><td>TiO2</td><td>5</td></tr><tr><td>Fluorescent Brightener</td><td>0.10</td></tr><tr><td>Antioxidant</td><td>0.17</td></tr><tr><td>Pigment</td><td>0.02</td></tr><tr><td>Release Agent</td><td>1</td></tr></table>When measured on Proudfit’s ball, this cover has a Shore D hardness of hardness of 49.6. (MacKnight Decl. (Ex. 30) at ¶ 33).</td></tr>
</table>

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Claim 5	**Proudfit and Molitor '751**
	OFF THE BALL When measured off the ball, this formulation had a Shore D hardness of **39.5** (*See* "Texin Blend" average Shore D hardness at AC 0131414 (ex. 34).)
molded over said spherical intermediate ball to form a multi-layer golf ball	"This **invention relates to golf balls**, and more particularly, to a golf ball having a **two-layer cover**." (Proudfit (Ex. 5), col. 1, lines 11-12.)
the outer cover layer comprising a polyurethane based material.	"… an **outer layer** of soft material such as balata or **a blend of balata and other elastomers**." (Proudfit (Ex. 5), col. 5, lines 15-17.) **Molitor '751:** "The preferred components of the cover material comprise a thermoplastic polyurethane . . . ." (Molitor '751 (Ex. 13), col. 3, lines 6-7.)

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NESBITT INCORPORATING MOLITOR '637
(OR ALTERNATIVELY IN COMBINATION WITH MOLITOR '637)

Claim 1	**Nesbitt and Molitor '637**
A golf ball comprising:	"The disclosure embraces **a golf ball** and method of making same …." (Nesbitt (Ex. 10), Abstract; FIGS 1 & 2.)
a core;	"Referring to the drawings in detail there is illustrated a golf ball 10 which comprises a **solid center or core** formed as a solid body of resilient polymeric material or rubber-like material in the shape of a sphere." (Nesbitt (Ex. 10), col. 2, lines 31-34.)
an inner cover layer having …	"Disposed on the spherical center or core 12 is a first layer, lamination, ply or **inner cover 14** of molded hard, highly flexural modulus resinous material…." (Nesbitt (Ex. 10), col. 2, lines 34-37.)
a Shore D hardness of 60 or more molded on said core,	**Nesbitt**: "[I]nner cover 14 of molded **hard**, high flexural modulus resinous material such as **type 1605 Surlyn® marketed by E.I DuPont de Nemours**." (Nesbitt (Ex. 10), col. 2, lines 36-38.) **Per the '293 Patent**: "Type 1605 Surlyn® (now designated Surlyn® 8940)." ('293 patent (Ex. 1), col. 2, lines 54-55.) **OFF THE BALL** **DuPont Surlyn® Product Information**: Surlyn® 8940 (formerly Surlyn® 1605) has a Shore D hardness of 66. ('293 patent (Ex. 1), Table 1.) **Nesbitt Incorporates the Materials of Molitor '637 by Reference**: Molitor '637 discloses a blend of two ionomers which has a Shore D hardness of 64.3 when measured "off the ball." (*See* "Blend 3" AC 0131414 (Ex. 34).) **ON THE BALL** Measurements of Surlyns made "on the ball" are higher than plaque measurements and would also be above 60. (Nesbitt Depo. Trans. (Ex. 16) at 244:12—244:17.) **Nesbitt Incorporates the Materials of Molitor '637 by Reference**:

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Claim 1	**Nesbitt and Molitor '637**
	Molitor '637 discloses a blend of two ionomers (Monitor '637 (Ex. 12), Table 1). Measurements of Surlyns made "on the ball" are higher than plaque measurements and would also be above 60. (Nesbitt Depo. Trans. (Ex. 16) at 244:12—244:17.)
said inner cover layer comprising a blend of two or more low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid; and	**Nesbitt Incorporates the Materials of Molitor '637 by Reference**: "Reference is made to the application Ser. No. 155,658 of **Robert P. Molitor issued into U.S. Pat. No. 4,274,637** which describes a number of foamable compositions of a character which may be employed for … layers 14 … for the golf ball of this invention." (Nesbitt (Ex. 10), col. 3, lines 54-60.) **Molitor '637**: Molitor teaches, in examples 1-7, cover materials including a blend of two ionomer resins: Surlyn 1605 and Surlyn 1557. (Molitor '637 (Ex. 12), col. 14, line 22 to col. 16, line 34.) Type 1605 Surlyn® is now designated Surlyn® 8940. ('293 patent (Ex. 1), col. 2, lines 54-55.) It has about 15% acid. ('293 patent (Ex. 1), col. 2, lines 55-57.) Type 1557 Surlyn is now designated Surlyn 9650. (DUP 000038 (Ex. 36).) It has an acid content of about 11%. (DUP 000132 (Ex. 37).) Callaway admits that Nesbitt teaches the use of the ionomer blend found in Molitor '637 in a multi-layer golf ball. (*See* Response to Office Action Mailed February 27, 2007 in Reexam. Cont. No. 95/000,120 (Ex. 28) at 16.)
an outer cover layer having …	"An **outer layer, ply, lamination or cover 16** … is then remolded onto the inner ply or layer 14…." (Nesbitt (Ex. 10), col. 2, lines 43-47.)
a Shore D hardness of 64 or less molded on said inner cover layer,	**OFF THE BALL** **Nesbitt:** Nesbitt teaches an outer cover layer made of Surlyn® 1855, now Surlyn® 9020 ('293 patent (Ex. 1), col. 2, lines (63-65.) It has a **Shore D hardness of 55** . (*See* CW 00512231 (Ex.

Claim 1	**Nesbitt and Molitor '637**
	45).) **Nesbitt Incorporates the Materials of Molitor '637 by Reference**: "Reference is made to the application Ser. No. 155,658 of **Robert P. Molitor issued into U.S. Pat. No. 4,274,637** which describes a number of foamable compositions of a character which may be employed for … layers … 16 for the golf ball of this invention." (Nesbitt (Ex. 10), col. 3, lines 54-60.) **Molitor '637**: Teaches the use of **Estane 58133** in Examples 16 and 17. (Molitor '637, col. 18.) Estane is a soft polyurethane material that has a **Shore D hardness of 55 as measured "off the ball**." (CW 00615792 (Ex. 46).) **ON THE BALL** When measured **on the ball of Nesbitt** Molitor '637's outer cover layer has a Shore D hardness of 61.0. (MacKnight Decl. (Ex. 30) at ¶ 33.)
said outer cover layer comprising a relatively soft polymeric material selected from the group consisting of non-ionomeric thermoplastic and thermosetting elastomers.	**Nesbitt Incorporates the Materials of Molitor '637 by Reference**: "Reference is made to the application Ser. No. 155,658 of **Robert P. Molitor issued into U.S. Pat. No. 4,274,637** which describes a number of foamable compositions of a character which may be employed for … layers … 16 for the golf ball of this invention." (Nesbitt (Ex. 10), col. 3, lines 54-60.) **Molitor '637**: "(1) **vinyl resins** formed by the polymerization of vinyl chloride or by the copolymerization of vinyl chloride with unsaturated polymerizable compounds, e.g., vinyl esters; (2) **polyolefins such as polyethylene, polypropylene, polybutylene, transpolyisoprene**, and the like, including copolymers of polyolefins; (3) **polyurethanes** such as are prepared from polyols and organic polyisocyanates; (4) **polyamides** such as polyhexamethylene; (5) **polystyrene**, high impact polystyrene, styrene acrylonitrile copolymer and ABS, which is acrylonitrile, butadiene styrene copolymer; (6) **acrylic resins** as exemplified by the copolymers of methylmethacrylate, acrylonitrile, and styrene, etc.; (7) **thermoplastic rubbers** such as the urethanes, copolymers of ethylene and propylene, and transpolyisoprene, block copolymers of styrene and cispolybutadiene, etc.; and (8) **polyphenylene oxide resins**, or a blend with high impact polystyrene known by the trade name "Noryl." (Molitor '637 (Ex. 12), col. 5, lines 34-51.)

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Claim 2	**Nesbitt and Molitor '637**
A golf ball according to claim 1	See above.
wherein the inner cover layer has a thickness of about 0.100 to about 0.070 inches	"It is found that the **inner layer** of hard, high flexural modulus resinous material such as Surlyn® resin type 1605, **is preferably of a thickness in a range of 0.020 inches and 0.070 inches**." (Nesbitt (Ex. 10), col. 3, lines 19-23.)
and the outer cover layer has a thickness of about 0.010 to about 0.010 inches,	"The **thickness of the outer layer or cover 16** of soft, low flexural modulus resin such as Surlyn type 1855, **may be in the range of 0.020 inches and 0.100 inches**." (Nesbitt (Ex. 10), col. 3, lines 22-25.) "The **outer layer** of the soft resin is of **a thickness of 0.0575 inches**." (Nesbitt (Ex. 10), col. 3, lines 39-40.)
the golf ball having the properties required by the U.S.G.A. and having an overall diameter of 1.680 inches or more.	"**According to the United States Golf Association Rules**, the **minimum diameter prescribed for a golf ball is 1.680 inches**…." (Nesbitt (Ex. 10), col. 2, lines 50-52.) "This center or core 12 and inner layer 14 of hard resinous material in the form of a sphere is then remolded into a dimpled **golf ball of a diameter of 1.680 inches minimum** with an outer or cover layer 16 of a soft, low flexural modulus resin…." (Nesbitt (Ex. 10), col. 3, lines 34-38.)

Claim 4	**Nesbitt and Molitor '637**
A golf ball according to claim 1,	See above.
wherein the outer layer comprises a polyurethane material.	**Molitor '637**: Estane 58133 is a relatively soft polyurethane material. (Molitor '637 (Ex. 12), col. 18.)

Claim 5	**Nesbitt and Molitor '637**
A multi-layer golf ball comprising:	"The disclosure embraces **a golf ball** and method of making same …." (Nesbitt (Ex. 10), Abstract; FIGS 1 & 2.)
a spherical core;	"Referring to the drawings in detail there is illustrated a golf ball 10 which comprises a **solid center or core** formed as a solid body of resilient polymeric material or rubber-like material **in the shape of a sphere."** (Nesbitt (Ex. 10), col. 2, lines 31-34.)
an inner cover layer having …	"Disposed on the spherical center or core 12 is a first layer, lamination, ply or **inner cover 14** of molded hard, highly flexural modulus resinous material…." (Nesbitt (Ex. 10), col. 2, lines 34-37.)
a Shore D hardness of 60 or more molded over said	**Nesbitt**: "[I]nner cover 14 of molded **hard**, high flexural modulus resinous material such as **type 1605 Surlyn® marketed**

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Claim 5	**Nesbitt and Molitor '637**
spherical core	**by E.I DuPont de Nemours**." (Nesbitt (Ex. 10), col. 2, lines 36-38.) **Per the '293 Patent**: "Type 1605 Surlyn® (now designated Surlyn® 8940)." ('293 patent (Ex. 1), col. 2, lines 54-55.) **OFF THE BALL** **DuPont Surlyn® Product Information**: Surlyn® 8940 (formerly Surlyn® 1605) has a Shore D hardness of 66. ('293 patent (Ex. 1), Table 1.) **Nesbitt Incorporates the Materials of Molitor '637 by Reference**: Molitor '637 discloses a blend of two ionomers which has a Shore D hardness of 64.3 when measured "off the ball." (*See* "Blend 3" AC 0131414 (Ex. 24).) **ON THE BALL** Measurements of Surlyns made "on the ball" are higher than plaque measurements and would also be above 60. (Nesbitt Depo. Trans. (Ex. 16) at 244:12—244:17.) **Nesbitt Incorporates the Materials of Molitor '637 by Reference**: Molitor '637 discloses a blend of two ionomers (Molitor '637 (Ex. 12), Table 1.) Measurements of Surlyns made "on the ball" are higher than plaque measurements and would also be above 60. (Nesbitt Depo. Trans. (Ex. 16) at 244:12—244:17.)
said inner cover layer comprising an ionomeric resin comprising no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid	**Nesbitt Incorporates the Materials of Molitor '637 by Reference**: "Reference is made to the application Ser. No. 155,658 of **Robert P. Molitor issued into U.S. Pat. No. 4,274,637** which describes a number of foamable compositions of a character which may be

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Claim 5	**Nesbitt and Molitor '637**
	employed for … layers 14 … for the golf ball of this invention." (Nesbitt (Ex. 10), col. 3, lines 54-60.) **Molitor '637**: Molitor teaches, in examples 1-7, cover materials including a blend of two ionomer resins: Surlyn 1605 and Surlyn 1557. (Molitor '637 (Ex. 12), col. 14, line 22 to col. 16, line 34.) Type 1605 Surlyn® is now designated Surlyn® 8940. ('293 patent (Ex. 1), col. 2, lines 54-55.) It has about 15% acid. ('293 patent (Ex. 1), col. 2, lines 55-57.) Type 1557 Surlyn is now designated Surlyn 9650. (DUP 000038 (Ex. 36).) It has an acid content of about 11%. (DUP 000132 (Ex. 37).) Callaway admits that Nesbitt teaches the use of the ionomer blend found in Molitor '637 in a multi-layer golf ball. (*See* Response to Office Action Mailed February 27, 2007 in Reexam. Cont. No. 95/000,120 (Ex. 28) at 16.)
and having a modulus of from about 15,000 to about 70,000 psi;	Surlyn® 1605 inherently exhibits the claimed modulus. "**Type 1605 Surlyn (Surlyn 8940)** is a sodium ion based low acid (less than or equal to 15 weight percent methacrylic acid) ionomer resin having a **flexural modulus of about 51,000 psi.**" ('293 patent (Ex. 1), col. 2, lines 55-59.)
an outer cover layer having …	"An outer layer, ply, lamination or cover 16 … is then remolded onto the inner play or layer 14…." (Nesbitt (Ex. 10), col. 2, lines 43-47.)
a Shore D hardness of 64 or less	**OFF THE BALL** **Nesbitt:** Nesbitt teaches an outer cover layer made of Surlyn® 1855, now Surlyn® 9020 ('293 patent (ex. 1), col. 2, lines (63-65.) It has a **Shore D hardness of 55** . (*See* CW 00512231 (Ex. 45).) **Nesbitt Incorporates the Materials of Molitor '637 by Reference**: "Reference is made to the application Ser. No. 155,658 of **Robert P. Molitor issued into U.S. Pat. No. 4,274,637** which describes a number of foamable compositions of a character which may be employed for … layers … 16 for the golf ball of this invention." (Nesbitt (Ex. 10), col. 3, lines 54-60.)

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Claim 5	Nesbitt and Molitor '637
	Molitor '637: Teaches the use of **Estane 58133** in Examples 16 and 17. (Molitor '637 (Ex. 12), col. 18.) Estane is a soft polyurethane material that has a **Shore D hardness of 55 as measured "off the ball**." (CW 00615792 (Ex. 46).) **ON THE BALL** When measured **on the ball of Nesbitt** Molitor '637's outer cover layer has a Shore D hardness of 61.0. (MacKnight Decl. (Ex. 30) at ¶ 33.)
molded over said spherical intermediate ball to form a multi-layer golf ball	"An outer layer, ply, lamination or cover 16 of comparatively soft, low flexural modulus resinous material … is then **re-molded onto the inner ply or layer 14 ….**" (Nesbitt (Ex. 10), col. 2, lines 43-47.)
the outer cover layer comprising a polyurethane based material.	**Nesbitt Incorporates Materials of Molitor by Reference**: "Reference is made to the application Ser. No. 155,658, of Robert P. Molitor issued into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for one or both layers 14 and 16." (Nesbitt (Ex. 10), col. 3, lines 54-60.) **Molitor '637**: Teaches cover materials including "polyurethanes such as are prepared from polyols and organic polyisocyanates"; specifically teaches Estane 58133 thermoplastic polyurethane. (Molitor '637 (Ex. 12), col. 5, lines 39-41; col. 18, lines 31-59 (examples 16 and 17).)

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NESBITT AND WU

Claim 1	**Nesbitt and Wu**
A golf ball comprising:	"The disclosure embraces **a golf ball** and method of making same …." (Nesbitt (Ex. 10), Abstract; FIGS 1 & 2.)
a core;	"Referring to the drawings in detail there is illustrated a golf ball 10 which comprises a **solid center or core** formed as a solid body of resilient polymeric material or rubber-like material in the shape of a sphere." (Nesbitt (Ex. 10), col. 2, lines 31-34.)
an inner cover layer having …	"Disposed on the spherical center or core 12 is a first layer, lamination, ply or **inner cover 14** of molded hard, highly flexural modulus resinous material…." (Nesbitt (Ex. 10), col. 2, lines 34-37.)
a Shore D hardness of 60 or more molded on said core,	**Nesbitt**: "[I]nner cover 14 of molded **hard**, high flexural modulus resinous material such as **type 1605 Surlyn® marketed by E.I DuPont de Nemours**." (Nesbitt (Ex. 10), col. 2, lines 36-38.) **Per the '293 Patent**: "Type 1605 Surlyn® (now designated Surlyn® 8940)." ('293 patent (Ex. 1), col. 2, lines 54-55.) **OFF THE BALL** **DuPont Surlyn® Product Information**: Surlyn® 8940 (formerly Surlyn® 1605) has a Shore D hardness of 66. ('293 patent (Ex. 1), Table 1.) **Nesbitt Incorporates the Materials of Molitor '637 by Reference**: Molitor '637 discloses a blend of two ionomers which has a Shore D hardness of 64.3 when measured "off the ball." (*See* "Blend 3" AC 0131414 (Ex. 34).) **ON THE BALL** Measurements of Surlyns made "on the ball" are higher than plaque measurements and would also be above 60. (Nesbitt Depo. Trans. (Ex. 16) at 244:12—244:17.) **Nesbitt Incorporates the Materials of Molitor '637 by Reference**:

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Claim 1	**Nesbitt and Wu**
	Molitor '637 discloses a blend of two ionomers (Molitor '637 (Ex. 12), Table 1). Measurements of Surlyns made "on the ball" are higher than plaque measurements and would also be above 60. (Nesbitt Depo. Trans. (Ex. 16) at 244:12—244:17.)
said inner cover layer comprising a blend of two or more low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid; and	**Nesbitt Incorporates the Materials of Molitor '637 by Reference**: "Reference is made to the application Ser. No. 155,658 of **Robert P. Molitor issued into U.S. Pat. No. 4,274,637** which describes a number of foamable compositions of a character which may be employed for … layers 14 … for the golf ball of this invention." (Nesbitt (Ex. 10), col. 3, lines 54-60.) **Molitor '637**: Molitor teaches, in examples 1-7, cover materials including a blend of two ionomer resins: Surlyn 1605 and Surlyn 1557. (Molitor '637 (Ex. 12), col. 14, line 22 to col. 16, line 34.) Type 1605 Surlyn® is now designated Surlyn® 8940. ('293 patent (Ex. 1), col. 2, lines 54-55.) It has about 15% acid. ('293 patent (Ex. 1), col. 2, lines 55-57.) Type 1557 Surlyn is now designated Surlyn 9650. (DUP 000038 (Ex. 36).) It has an acid content of about 11%. (DUP 000132 (Ex. 37).) Callaway admits that Nesbitt teaches the use of the ionomer blend found in Molitor '637 in a multi-layer golf ball. (*See* Response to Office Action Mailed February 27, 2007 in Reexam. Cont. No. 95/000,120 (Ex. 28) at 16.)
an outer cover layer having …	"An **outer layer, ply, lamination or cover 16** … is then remolded onto the inner ply or layer 14…." (Nesbitt (Ex. 10), col. 2, lines 43-47.)
a Shore D hardness of 64 or less molded on said inner cover layer,	**Nesbitt:** Nesbitt teaches an outer cover layer made of Surlyn® 1855 (now Surlyn® 9020) that has a **Shore D hardness of 55**. **Nesbitt Incorporates the Materials of Molitor '637 by Reference**:

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Claim 1	**Nesbitt and Wu**
	"Reference is made to the application Ser. No. 155,658 of **Robert P. Molitor issued into U.S. Pat. No. 4,274,637** which describes a number of foamable compositions of a character which may be employed for … layers … 16 for the golf ball of this invention." (Nesbitt (Ex. 10), col. 3, lines 54-60.) **Molitor '637**: Teaches the use of **Estane 58133** in Examples 16 and 17. (Molitor '637 (Ex. 12), col. 18.) Estane is a soft polyurethane material that has a **Shore D hardness of 55 measured off the ball**. (CW 00615792 (Ex. 46).) When measured **on the ball of Nesbitt** Molitor '637's outer cover layer has a Shore D hardness of 61.0. (MacKnight Decl. (Ex. 30) at ¶ 33). **Wu** **ON THE BALL** Wu's polyurethane has a Shore D hardness of 55.6 when measured on Nesbitt's ball. (MacKnight Decl. (Ex. 30) at ¶ 33.) **OFF THE BALL** Off the ball measurements of polyurethanes are lower than on the ball the measurements (Wu Depo. Trans. (Ex. 33) at 60:14—60:24.) This material had a Shore D hardness of **51.6** when measured "off the ball." (*See* AC0131414 (Ex. 34) showing measurements of MDI prepolymer.)
said outer cover layer comprising a relatively soft polymeric material selected from the group consisting of non-ionomeric thermoplastic and thermosetting elastomer.	**Nesbitt Incorporates the Materials of Molitor '637 by Reference**: "Reference is made to the application Ser. No. 155,658 of **Robert P. Molitor issued into U.S. Pat. No. 4,274,637** which describes a number of foamable compositions of a character which may be employed for … layers … 16 for the golf ball of this invention." (Nesbitt (Ex. 10), col. 3, lines 54-60.) **Molitor '637**: "(1) **vinyl resins** formed by the polymerization of vinyl chloride or by the copolymerization of vinyl chloride with unsaturated polymerizable compounds, e.g., vinyl esters; (2) **polyolefins such as polyethylene, polypropylene, polybutylene, transpolyisoprene**, and the like, including copolymers of

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Claim 1	**Nesbitt and Wu**
	polyolefins; (3) **polyurethanes** such as are prepared from polyols and organic polyisocyanates; (4) **polyamides** such as polyhexamethylene; (5) **polystyrene**, high impact polystyrene, styrene acrylonitrile copolymer and ABS, which is acrylonitrile, butadiene styrene copolymer; (6) **acrylic resins** as exemplified by the copolymers of methylmethacrylate, acrylonitrile, and styrene, etc.; (7) **thermoplastic rubbers** such as the urethanes, copolymers of ethylene and propylene, and transpolyisoprene, block copolymers of styrene and cispolybutadiene, etc.; and (8) **polyphenylene oxide resins**, or a blend with high impact polystyrene known by the trade name "Noryl." (Molitor '637 (ex. 12), col. 5, lines 34-51.) **Wu** Wu discloses a golf ball cover formulation comprising a polyurethane. (Wu (Ex. 8), Table 1; col. 7, line 10—col. 8, ll. 35; claim 1.)

Claim 2	**Nesbitt and Wu**
A golf ball according to claim 1	See above.
wherein the inner cover layer has a thickness of about 0.100 to about 0.070 inches	"It is found that the **inner layer** of hard, high flexural modulus resinous material such as Surlyn® resin type 1605, **is preferably of a thickness in a range of 0.020 inches and 0.070 inches**." (Nesbitt (Ex. 10), col. 3, lines 19-23.)
and the outer cover layer has a thickness of about 0.010 to about 0.010 inches,	"The **thickness of the outer layer or cover 16** of soft, low flexural modulus resin such as Surlyn type 1855, **may be in the range of 0.020 inches and 0.100 inches**." (Nesbitt (Ex. 10), col. 3, lines 22-25.) "The **outer layer** of the soft resin is of **a thickness of 0.0575 inches**." (Nesbitt (Ex. 10), col. 3, lines 39-40.)
the golf ball having the properties required by the U.S.G.A. and having an overall diameter of 1.680 inches or more.	"**According to the United States Golf Association Rules**, the **minimum diameter prescribed for a golf ball is 1.680 inches**…." (Nesbitt (Ex. 10), col. 2, lines 50-52.) "This center or core 12 and inner layer 14 of hard resinous material in the form of a sphere is then remolded into a dimpled **golf ball of a diameter of 1.680 inches minimum** with an outer or cover layer 16 of a soft, low flexural modulus resin…." (Nesbitt (Ex. 10), col. 3, lines 34-38.)

Claim 4	**Nesbitt and Wu**
A golf ball according to claim	See above.

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Claim 4	**Nesbitt and Wu**
1,	
wherein the outer layer comprises a polyurethane material.	**Wu** Wu discloses a golf ball cover formulation comprising a polyurethane. (Wu (Ex. 8), Table 1; col. 7, line 10—col. 8, ll. 35; claim 1.)

Claim 5	**Nesbitt and Wu**
A multi-layer golf ball comprising:	"The disclosure embraces **a golf ball** and method of making same …." (Nesbitt (Ex. 10), Abstract; FIGS 1 & 2.)
a spherical core;	"Referring to the drawings in detail there is illustrated a golf ball 10 which comprises a **solid center or core** formed as a solid body of resilient polymeric material or rubber-like material **in the shape of a sphere."** (Nesbitt (Ex. 10), col. 2, lines 31-34.)
an inner cover layer having …	"Disposed on the spherical center or core 12 is a first layer, lamination, ply or **inner cover 14** of molded hard, highly flexural modulus resinous material…." (Nesbitt (Ex. 10), col. 2, lines 34-37.)
a Shore D hardness of 60 or more molded over said spherical core	**Nesbitt**: "[I]nner cover 14 of molded **hard**, high flexural modulus resinous material such as **type 1605 Surlyn® marketed by E.I DuPont de Nemours**." (Nesbitt (Ex. 10), col. 2, lines 36-38.) **Per the '293 Patent**: "Type 1605 Surlyn® (now designated Surlyn® 8940)." ('293 patent (Ex. 1), col. 2, lines 54-55.) **OFF THE BALL** **DuPont Surlyn® Product Information**: Surlyn® 8940 (formerly Surlyn® 1605) has a Shore D hardness of 66. ('293 patent (Ex. 1), Table 1.) **Nesbitt Incorporates the Materials of Molitor '637 by Reference**: Molitor '637 discloses a blend of two ionomers which has a Shore D hardness of 64.3 when measured "off the ball." (*See* "Blend 3" AC 0131414 (Ex. 34).) **ON THE BALL**

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Claim 5	**Nesbitt and Wu**
	Measurements of Surlyns made "on the ball" are higher than plaque measurements and would also be above 60. (Nesbitt Depo. Trans. (Ex. 16) at 244:12—244:17.) **Nesbitt Incorporates the Materials of Molitor '637 by Reference**: Molitor '637 discloses a blend of two ionomers (Molitor '637 (Ex. 12), Table 1). Measurements of Surlyns made "on the ball" are higher than plaque measurements and would also be above 60. (Nesbitt Depo. Trans. (Ex. 16) at 244:12—244:17.)
said inner cover layer comprising an ionomeric resin comprising no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid	**Nesbitt Incorporates the Materials of Molitor '637 by Reference**: "Reference is made to the application Ser. No. 155,658 of **Robert P. Molitor issued into U.S. Pat. No. 4,274,637** which describes a number of foamable compositions of a character which may be employed for … layers 14 … for the golf ball of this invention." (Nesbitt (Ex. 10), col. 3, lines 54-60.) **Molitor '637**: Molitor teaches, in examples 1-7, cover materials including a blend of two ionomer resins: Surlyn 1605 and Surlyn 1557. (Molitor '637 (Ex. 12), col. 14, line 22 to col. 16, line 34.) Type 1605 Surlyn® is now designated Surlyn® 8940. ('293 patent (Ex. 1), col. 2, lines 54-55.) It has about 15% acid. ('293 patent (Ex. 1), col. 2, lines 55-57.) Type 1557 Surlyn is now designated Surlyn 9650. (DUP 000038 (Ex. 36).) It has an acid content of about 11%. (DUP 000132 (Ex. 37).) Callaway admits that Nesbitt teaches the use of the ionomer blend found in Molitor '637 in a multi-layer golf ball. (*See* Response to Office Action Mailed February 27, 2007 in Reexam. Cont. No. 95/000,120 (Ex. 28) at 16.)
and having a modulus of	Surlyn® 1605 inherently exhibits the claimed modulus.

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Claim 5	**Nesbitt and Wu**
from about 15,000 to about 70,000 psi;	"**Type 1605 Surlyn (Surlyn 8940)** is a sodium ion based low acid (less than or equal to 15 weight percent methacrylic acid) ionomer resin having a **flexural modulus of about 51,000 psi.**" ('293 patent (Ex. 1), col. 2, lines 55-59.)
an outer cover layer having …	"An outer layer, ply, lamination or cover 16 … is then remolded onto the inner play or layer 14…." (Nesbitt (Ex. 10), col. 2, lines 43-47.)
a Shore D hardness of 64 or less	**OFF THE BALL** **Nesbitt:** Nesbitt teaches an outer cover layer made of Surlyn® 1855, now Surlyn® 9020 ('293 patent (ex. 1), col. 2, lines (63-65.) It has a **Shore D hardness of 55** . (*See* CW 00512231.) **Nesbitt Incorporates the Materials of Molitor '637 by Reference**: "Reference is made to the application Ser. No. 155,658 of **Robert P. Molitor issued into U.S. Pat. No. 4,274,637** which describes a number of foamable compositions of a character which may be employed for … layers … 16 for the golf ball of this invention." (Nesbitt (Ex. 10), col. 3, lines 54-60.) **Wu** **ON THE BALL** Wu's polyurethane has a Shore D hardness of 55.6 when measured on Nesbitt's ball. (MacKnight Decl. (Ex. 30) at ¶ 33.) **OFF THE BALL** Off the ball measurements of polyurethanes are lower than on the ball the measurements (Wu Depo. Trans. (Ex. 33) at 60:14—60:24.) This material had a Shore D hardness of **51.6** when measured "off the ball." (*See* AC0131414 (Ex. 34) showing measurements of MDI prepolymer.)
molded over said spherical intermediate ball to form a multi-layer golf ball	"An outer layer, ply, lamination or cover 16 of comparatively soft, low flexural modulus resinous material … is then **re-molded onto the inner ply or layer 14 ….**" (Nesbitt (Ex. 10), col. 2, lines 43-47.)

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Claim 5	**Nesbitt and Wu**
the outer cover layer comprising a polyurethane based material.	**Nesbitt Incorporates Materials of Molitor by Reference**: "Reference is made to the application Ser. No. 155,658, of Robert P. Molitor issued into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for one or both layers 14 and 16." (Nesbitt (Ex. 10), col. 3, lines 54-60.) **Wu** Wu discloses a golf ball cover formulation comprising a polyurethane. (Wu (Ex. 8), Table 1; col. 7, line 10—col. 8, ll. 35; claim 1.)

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NESBITT AND MOLITOR '751

Claim 1	**Nesbitt and Molitor '751**
A golf ball comprising:	"The disclosure embraces **a golf ball** and method of making same …." (Nesbitt (Ex. 10), Abstract; FIGS 1 & 2.)
a core;	"Referring to the drawings in detail there is illustrated a golf ball 10 which comprises a **solid center or core** formed as a solid body of resilient polymeric material or rubber-like material in the shape of a sphere." (Nesbitt (Ex. 10), col. 2, lines 31-34.)
an inner cover layer having …	"Disposed on the spherical center or core 12 is a first layer, lamination, ply or **inner cover 14** of molded hard, highly flexural modulus resinous material…." (Nesbitt (Ex. 10), col. 2, lines 34-37.)
a Shore D hardness of 60 or more molded on said core,	**Nesbitt**: "[I]nner cover 14 of molded **hard**, high flexural modulus resinous material such as **type 1605 Surlyn® marketed by E.I DuPont de Nemours**." (Nesbitt (Ex. 10), col. 2, lines 36-38.) **Per the '293 Patent**: "Type 1605 Surlyn® (now designated Surlyn® 8940)." ('293 patent (Ex. 1), col. 2, lines 54-55.) **OFF THE BALL** **DuPont Surlyn® Product Information**: Surlyn® 8940 (formerly Surlyn® 1605) has a Shore D hardness of 66. ('293 patent (Ex. 1), Table 1.) **Nesbitt Incorporates the Materials of Molitor '637 by Reference**: Molitor '637 discloses a blend of two ionomers which has a Shore D hardness of 64.3 when measured "off the ball." (*See* "Blend 3" AC 0131414 (Ex. 34).) **ON THE BALL** Measurements of Surlyns made "on the ball" are higher than plaque measurements and would also be above 60. (Nesbitt Depo. Trans. (Ex. 16) at 244:12—244:17.) **Nesbitt Incorporates the Materials of Molitor '637 by Reference**:

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Claim 1	**Nesbitt and Molitor '751**
	Molitor '637 discloses a blend of two ionomers (Molitor '637 (Ex. 12), Table 1). Measurements of Surlyns made "on the ball" are higher than plaque measurements and would also be above 60. (Nesbitt Depo. Trans. (Ex. 16) at 244:12—244:17.)
said inner cover layer comprising a blend of two or more low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid; and	**Nesbitt Incorporates the Materials of Molitor '637 by Reference**: "Reference is made to the application Ser. No. 155,658 of **Robert P. Molitor issued into U.S. Pat. No. 4,274,637** which describes a number of foamable compositions of a character which may be employed for … layers 14 … for the golf ball of this invention." (Nesbitt (Ex. 10), col. 3, lines 54-60.) **Molitor '637**: Molitor teaches, in examples 1-7, cover materials including a blend of two ionomer resins: Surlyn 1605 and Surlyn 1557. (Molitor '637 (Ex. 12), col. 14, line 22 to col. 16, line 34.) Type 1605 Surlyn® is now designated Surlyn® 8940. ('293 patent (Ex. 1), col. 2, lines 54-55.) It has about 15% acid. ('293 patent (Ex. 1), col. 2, lines 55-57.) Type 1557 Surlyn is now designated Surlyn 9650. (DUP 000038 (Ex. 36).) It has an acid content of about 11%. (DUP 000132 (Ex. 37).) Callaway admits that Nesbitt teaches the use of the ionomer blend found in Molitor '637 in a multi-layer golf ball. (*See* Response to Office Action Mailed February 27, 2007 in Reexam. Cont. No. 95/000,120 (Ex. 28) at 16.) **Molitor '751** Molitor '751 teaches blends comprising Surlyn 1605 (8940), Surlyn 1706 (9910). (Molitor '751 (Ex. 13), Table 1.) Each of these materials is less than 16% acid (*See* '293 patent (Ex. 1), col. 8, lines 20-27.)
an outer cover layer having …	"An **outer layer, ply, lamination or cover 16** … is then remolded onto the inner ply or layer 14…." (Nesbitt (Ex. 10), col.

<table>
<tr><th>Claim 1</th><th>Nesbitt and Molitor ‘751</th></tr>
<tr><td></td><td>2, lines 43-47.)</td></tr>
<tr><td>a Shore D hardness of 64 or less molded on said inner cover layer,</td><td><u>Nesbitt:</u> Nesbitt teaches an outer cover layer made of Surlyn® 1855 (now Surlyn® 9020) that has a Shore D hardness of 55.

<u>Nesbitt Incorporates the Materials of Molitor ’637 by Reference</u>:
“Reference is made to the application Ser. No. 155,658 of Robert P. Molitor issued into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for … layers … 16 for the golf ball of this invention.” (Nesbitt (Ex. 10), col. 3, lines 54-60.)

<u>Molitor ’637</u>: Teaches the use of Estane 58133 in Examples 16 and 17. (Molitor ’637 (Ex. 12), col. 18.) Estane is a soft polyurethane material that has a Shore D hardness of 55 measured off the ball. (CW 00615792 (Ex. 46).)

When measured on the ball of Nesbitt Molitor ‘637’s outer cover layer has a Shore D hardness of 61.0. (MacKnight Decl. (Ex. 30) at ¶ 33).

<u>Molitor ‘751:</u>
<u>ON THE BALL</u>
Molitor ‘751 discloses the following blend as the most preferred (Molitor ‘751 (Ex. 13), col. 7, line 25, Table):
<table><tr><th>Material</th><th>Parts</th></tr><tr><td>Texin 480 AR (now 285)</td><td>90</td></tr><tr><td>Surlyn 1605 (now 8940)</td><td>10</td></tr><tr><td>TiO2</td><td>5</td></tr><tr><td>Fluorescent Brightener</td><td>0.10</td></tr><tr><td>Antioxidant</td><td>0.17</td></tr><tr><td>Pigment</td><td>0.02</td></tr><tr><td>Release Agent</td><td>1</td></tr></table>When measured on Nesbitt’s ball, this cover has a Shore D hardness of hardness of 49.6. (MacKnight Decl. (Ex. 30) at ¶ 33).</td></tr>
</table>

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Claim 1	**Nesbitt and Molitor '751**
	OFF THE BALL When measured off the ball, this formulation had a Shore D hardness of **39.5** (*See* "Texin Blend" average Shore D hardness at AC 0131414 (Ex. 34).)
said outer cover layer comprising a relatively soft polymeric material selected from the group consisting of non-ionomeric thermoplastic and thermosetting elastomers.	**Nesbitt Incorporates the Materials of Molitor '637 by Reference**: "Reference is made to the application Ser. No. 155,658 of **Robert P. Molitor issued into U.S. Pat. No. 4,274,637** which describes a number of foamable compositions of a character which may be employed for … layers … 16 for the golf ball of this invention." (Nesbitt (Ex. 10), col. 3, lines 54-60.) **Molitor '637**: "(1) **vinyl resins** formed by the polymerization of vinyl chloride or by the copolymerization of vinyl chloride with unsaturated polymerizable compounds, e.g., vinyl esters; (2) **polyolefins such as polyethylene, polypropylene, polybutylene, transpolyisoprene**, and the like, including copolymers of polyolefins; (3) **polyurethanes** such as are prepared from polyols and organic polyisocyanates; (4) **polyamides** such as polyhexamethylene; (5) **polystyrene**, high impact polystyrene, styrene acrylonitrile copolymer and ABS, which is acrylonitrile, butadiene styrene copolymer; (6) **acrylic resins** as exemplified by the copolymers of methylmethacrylate, acrylonitrile, and styrene, etc.; (7) **thermoplastic rubbers** such as the urethanes, copolymers of ethylene and propylene, and transpolyisoprene, block copolymers of styrene and cispolybutadiene, etc.; and (8) **polyphenylene oxide resins**, or a blend with high impact polystyrene known by the trade name "Noryl." (Molitor '637 (Ex. 12), col. 5, lines 34-51.) **Molitor '751:** "The preferred components of the cover material comprise a thermoplastic polyurethane . . . ." (Molitor '751 (Ex. 13), col. 3, lines 6-7.)

Claim 2	**Nesbitt and Molitor '751**
A golf ball according to claim 1	See above.
wherein the inner cover layer has a thickness of about 0.100 to about 0.070 inches	"It is found that the **inner layer** of hard, high flexural modulus resinous material such as Surlyn® resin type 1605, **is preferably of a thickness in a range of 0.020 inches and 0.070 inches**." (Nesbitt (Ex. 10), col. 3, lines 19-23.)
and the outer cover layer has a thickness of about 0.010 to	"The **thickness of the outer layer or cover 16** of soft, low flexural modulus resin such as Surlyn type 1855, **may be in the**

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Claim 2	**Nesbitt and Molitor '751**
about 0.010 inches,	**range of 0.020 inches and 0.100 inches**." (Nesbitt (Ex. 10), col. 3, lines 22-25.) "The **outer layer** of the soft resin is of **a thickness of 0.0575 inches**." (Nesbitt (Ex. 10), col. 3, lines 39-40.)
the golf ball having the properties required by the U.S.G.A. and having an overall diameter of 1.680 inches or more.	"**According to the United States Golf Association Rules**, the **minimum diameter prescribed for a golf ball is 1.680 inches**…." (Nesbitt (Ex. 10), col. 2, lines 50-52.) "This center or core 12 and inner layer 14 of hard resinous material in the form of a sphere is then remolded into a dimpled **golf ball of a diameter of 1.680 inches minimum** with an outer or cover layer 16 of a soft, low flexural modulus resin…." (Nesbitt (Ex. 10), col. 3, lines 34-38.)

Claim 4	**Nesbitt and Molitor '751**
A golf ball according to claim 1,	See above.
wherein the outer layer comprises a polyurethane material.	**Molitor '751:** "The preferred components of the cover material comprise a thermoplastic polyurethane . . . ." (Molitor '751 (Ex. 13), col. 3, lines 6-7.)

Claim 5	**Nesbitt and Molitor '751**
A multi-layer golf ball comprising:	"The disclosure embraces **a golf ball** and method of making same …." (Nesbitt (Ex. 10), Abstract; FIGS 1 & 2.)
a spherical core;	"Referring to the drawings in detail there is illustrated a golf ball 10 which comprises a **solid center or core** formed as a solid body of resilient polymeric material or rubber-like material **in the shape of a sphere."** (Nesbitt (Ex. 10), col. 2, lines 31-34.)
an inner cover layer having …	"Disposed on the spherical center or core 12 is a first layer, lamination, ply or **inner cover 14** of molded hard, highly flexural modulus resinous material…." (Nesbitt (Ex. 10), col. 2, lines 34-37.)
a Shore D hardness of 60 or more molded over said spherical core	**Nesbitt**: "[I]nner cover 14 of molded **hard**, high flexural modulus resinous material such as **type 1605 Surlyn® marketed by E.I DuPont de Nemours**." (Nesbitt (Ex. 10), col. 2, lines 36-38.) **Per the '293 Patent**: "Type 1605 Surlyn® (now designated Surlyn® 8940)." ('293 patent (Ex. 1), col. 2, lines 54-55.)

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Claim 5	Nesbitt and Molitor '751
	OFF THE BALL **DuPont Surlyn® Product Information**: Surlyn® 8940 (formerly Surlyn® 1605) has a Shore D hardness of 66. ('293 patent, Table 1.) **Nesbitt Incorporates the Materials of Molitor '637 by Reference**: Molitor '637 discloses a blend of two ionomers which has a Shore D hardness of 64.3 when measured "off the ball." (*See* "Blend 3" AC 0131414 (Ex. 34).) **ON THE BALL** Measurements of Surlyns made "on the ball" are higher than plaque measurements and would also be above 60. (Nesbitt Depo. Trans. (Ex. 16) at 244:12—244:17.) **Nesbitt Incorporates the Materials of Molitor '637 by Reference**: Molitor '637 discloses a blend of two ionomers (Molitor '637 (Ex. 12) Table 1). Measurements of Surlyns made "on the ball" are higher than plaque measurements and would also be above 60. (Nesbitt Depo. Trans. (Ex. 16) at 244:12—244:17.)
said inner cover layer comprising an ionomeric resin comprising no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid	**Nesbitt Incorporates the Materials of Molitor '637 by Reference**: "Reference is made to the application Ser. No. 155,658 of **Robert P. Molitor issued into U.S. Pat. No. 4,274,637** which describes a number of foamable compositions of a character which may be employed for … layers 14 … for the golf ball of this invention." (Nesbitt (Ex. 10), col. 3, lines 54-60.) **Molitor '637**: Molitor teaches, in examples 1-7, cover materials including a blend of two ionomer resins: Surlyn 1605 and Surlyn

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Claim 5	**Nesbitt and Molitor '751**
	1557. (Molitor '637 (Ex. 12), col. 14, line 22 to col. 16, line 34.) Type 1605 Surlyn® is now designated Surlyn® 8940. ('293 patent (Ex. 1), col. 2, lines 54-55.) It has about 15% acid. ('293 patent (Ex. 1), col. 2, lines 55-57.) Type 1557 Surlyn is now designated Surlyn 9650. (DUP 000038 (Ex. 36).) It has an acid content of about 11%. (DUP 000132 (Ex. 37).) Callaway admits that Nesbitt teaches the use of the ionomer blend found in Molitor '637 in a multi-layer golf ball. (*See* Response to Office Action Mailed February 27, 2007 in Reexam. Cont. No. 95/000,120 at 16 (Ex. 28).)
and having a modulus of from about 15,000 to about 70,000 psi;	Surlyn® 1605 inherently exhibits the claimed modulus. "**Type 1605 Surlyn (Surlyn 8940)** is a sodium ion based low acid (less than or equal to 15 weight percent methacrylic acid) ionomer resin having a **flexural modulus of about 51,000 psi.**" ('293 patent (Ex. 1) , col. 2, lines 55-59.)
an outer cover layer having …	"An outer layer, ply, lamination or cover 16 … is then remolded onto the inner play or layer 14…." (Nesbitt (Ex. 10), col. 2, lines 43-47.)
a Shore D hardness of 64 or less	**OFF THE BALL** **Nesbitt:** Nesbitt teaches an outer cover layer made of Surlyn® 1855, now Surlyn® 9020 ('293 patent (Ex. 1), col. 2, lines 63-65.) It has a **Shore D hardness of 55** . (*See* CW 00512231 (Ex. 45).) **Nesbitt Incorporates the Materials of Molitor '637 by Reference**: "Reference is made to the application Ser. No. 155,658 of **Robert P. Molitor issued into U.S. Pat. No. 4,274,637** which describes a number of foamable compositions of a character which may be employed for … layers … 16 for the golf ball of this invention." (Nesbitt (Ex. 10), col. 3, lines 54-60.) **Molitor '751:** **ON THE BALL** Molitor '751 discloses the following blend as the most preferred

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<table>
<tr><th>Claim 5</th><th>Nesbitt and Molitor ‘751</th></tr>
<tr><td></td><td>(Molitor ‘751 (Ex. 13), col. 7, line 25, Table):
<table>
<tr><th>Material</th><th>Parts</th></tr>
<tr><td>Texin 480 AR (now 285)</td><td>90</td></tr>
<tr><td>Surlyn 1605 (now 8940)</td><td>10</td></tr>
<tr><td>TiO2</td><td>5</td></tr>
<tr><td>Fluorescent Brightener</td><td>0.10</td></tr>
<tr><td>Antioxidant</td><td>0.17</td></tr>
<tr><td>Pigment</td><td>0.02</td></tr>
<tr><td>Release Agent</td><td>1</td></tr>
</table>
When measured on Nesbitt’s ball, this cover has a Shore D hardness of hardness of 49.6. (MacKnight Decl. (Ex. 30) at ¶ 33).
<u>OFF THE BALL</u>
When measured off the ball, this formulation had a Shore D hardness of 39.5 (See “Texin Blend” average Shore D hardness at AC 0131414 (Ex. 34).)</td></tr>
<tr><td>molded over said spherical intermediate ball to form a multi-layer golf ball</td><td>“An outer layer, ply, lamination or cover 16 of comparatively soft, low flexural modulus resinous material … is then re-molded onto the inner ply or layer 14 ….” (Nesbitt (Ex. 10), col. 2, lines 43-47.)</td></tr>
<tr><td>the outer cover layer comprising a polyurethane based material.</td><td><u>Nesbitt Incorporates Materials of Molitor by Reference</u>:
“Reference is made to the application Ser. No. 155,658, of Robert P. Molitor issued into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for one or both layers 14 and 16.” (Nesbitt (Ex. 10), col. 3, lines 54-60.)
<u>Molitor ‘751:</u>
“The preferred components of the cover material comprise a thermoplastic polyurethane . . . .” (Molitor ‘751 (Ex. 13), col. 3, lines 6-7.)</td></tr>
</table>

EXHIBIT C

Invalidity Charts for U.S. Patent No. 6,503,156

NESBITT INCORPORATING MOLITOR '637
(OR ALTERNATIVELY IN COMBINATION WITH MOLITOR '637)

Claim 1	**Nesbitt and Molitor '637**
A golf ball comprising:	"The disclosure embraces **a golf ball** and method of making same …." (Nesbitt (Ex. 10), Abstract; FIGS 1 & 2.)
a core;	"Referring to the drawings in detail there is illustrated a golf ball 10 which comprises a **solid center or core** formed as a solid body of resilient polymeric material or rubber-like material in the shape of a sphere." (Nesbitt (Ex. 10), col. 2, lines 31-34.)
an inner cover layer having disposed on said core, …	"Disposed on the spherical center or core 12 is a first layer, lamination, ply or **inner cover 14** of molded hard, highly flexural modulus resinous material…." (Nesbitt (Ex. 10), col. 2, lines 34-37.)
said inner cover layer having a Shore D hardness of at least 60,	**Nesbitt**: "[I]nner cover 14 of molded **hard**, high flexural modulus resinous material such as **type 1605 Surlyn® marketed by E.I DuPont de Nemours**." (Nesbitt (Ex. 10), col. 2, lines 36-38.) **Per the '293 Patent**: "Type 1605 Surlyn® (now designated Surlyn® 8940)." ('293 patent (Ex. 1), col. 2, lines 54-55.) **OFF THE BALL** **DuPont Surlyn® Product Information**: Surlyn® 8940 (formerly Surlyn® 1605) has a Shore D hardness of 66. ('293 patent (Ex. 1), Table 1.) **Nesbitt Incorporates the Materials of Molitor '637 by Reference**: Molitor '637 discloses a blend of two ionomers which has a Shore D hardness of 64.3 when measured "off the ball." (*See* "Blend 3" AC 0131414 (Ex. 34).) **ON THE BALL** Measurements of Surlyns made "on the ball" are higher than plaque measurements and would also be above 60. *See* Nesbitt Depo. Trans. (Ex. 16) at 244:12—244:17.)
said inner cover layer comprising a blend of two or more low acid ionomer resins, each containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid; and,	**Nesbitt Incorporates the Materials of Molitor '637 by Reference**: **Molitor '637**: Molitor teaches, in examples 1-7, cover materials including a blend of two ionomer resins: Surlyn 1605 and Surlyn 1557. (Molitor '637 (Ex. 12), col. 14, line 22 to col. 16, line 34.) Type 1605 Surlyn® is now designated Surlyn® 8940. ('293 patent, col. 2 (Ex. 1), lines 54-55.) It has about 15% acid. ('293

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Claim 1	**Nesbitt and Molitor '637**
	patent (Ex. 1), col. 2, lines 55-57.) Type 1557 Surlyn is now designated Surlyn 9650. (DUP 000038 (Ex. 36).) It has an acid content of about 11%. (DUP 000132 (Ex. 37).) Callaway admits that Nesbitt teaches the use of the ionomer blend found in Molitor '637 in a multi-layer golf ball. (*See* Response to Office Action Mailed February 27, 2007 in Reexam. Cont. No. 95/000,120 (Ex. 28) at 16.)
an outer cover layer disposed on said inner cover layer,	"An **outer layer, ply, lamination or cover 16** … is then remolded onto the inner ply or layer 14…." (Nesbitt (Ex. 10), col. 2, lines 43-47.)
said outer cover layer having a Shore D hardness of about 64 or less,	**OFF THE BALL** **Nesbitt:** Nesbitt teaches an outer cover layer made of Surlyn® 1855, now Surlyn® 9020 ('293 patent, col. 2, lines (63-65.) It has a **Shore D hardness of 55** . (*See* CW 00512231 (Ex. 45).) **Nesbitt Incorporates the Materials of Molitor '637 by Reference**: "Reference is made to the application Ser. No. 155,658 of **Robert P. Molitor issued into U.S. Pat. No. 4,274,637** which describes a number of foamable compositions of a character which may be employed for … layers … 16 for the golf ball of this invention." (Nesbitt (Ex. 10), col. 3, lines 54-60.) **Molitor '637**: Teaches the use of **Estane 58133** in Examples 16 and 17. (Molitor '637, col. 18.) Estane is a soft polyurethane material that has a **Shore D hardness of 55 as measured "off the ball**." (CW 00615792 (Ex. 46).) **ON THE BALL** When measured **on the ball of Nesbitt** Molitor '637's outer cover layer has a Shore D hardness of 61.0. (MacKnight Decl. (Ex. 30) at ¶ 33.)
a thickness of from about 0.01 to about 0.07 inches,	"It is found that the inner layer of hard, high flexural modulus resinous material such as Surlyn® resin type 1605, is preferably of a thickness in a range of 0.020 inches and 0.070 inches." (Nesbitt (Ex. 10), col. 3, lines 19-23.) "The outer layer of the soft resin is of a thickness of **0.0575**

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Claim 1	**Nesbitt and Molitor '637**
	inches." (Nesbitt (Ex. 10, col. 3, lines 39-40.)
and comprising a polyurethane material.	**Molitor '637**: Estane 58133 is a relatively soft polyurethane material. (Molitor '637 (Ex. 12), col. 18.)

Claim 2	**Nesbitt and Molitor '637**
The golf ball of claim 1	See above.
wherein said outer cover layer has a thickness of from about 0.01 to about 0.05 inches.	"The **thickness of the outer layer or cover 16** of soft, low flexural modulus resin such as Surlyn type 1855, **may be in the range of 0.020 inches and 0.100 inches**." (Nesbitt (Ex. 10), col. 3, lines 22-25.)

Claim 3	**Nesbitt and Molitor '637**
The golf ball of claim 1	See above.
wherein said outer cover layer has a thickness of from about 0.03 to about 0.06 inches.	"The **thickness of the outer layer or cover 16** of soft, low flexural modulus resin such as Surlyn type 1855, **may be in the range of 0.020 inches and 0.100 inches**." (Nesbitt (Ex. 10), col. 3, lines 22-25.) "The **outer layer** of the soft resin is of **a thickness of 0.0575 inches**." (Nesbitt (Ex. 10), col. 3, lines 39-40.)

Claim 4	**Nesbitt and Molitor '637**
A golf ball comprising:	"The disclosure embraces **a golf ball** and method of making same …." (Nesbitt (Ex. 10), Abstract; FIGS 1 & 2.)
a core:	"Referring to the drawings in detail there is illustrated a golf ball 10 which comprises a **solid center or core** formed as a solid body of resilient polymeric material or rubber-like material **in the shape of a sphere**." (Nesbitt (Ex. 10), col. 2, lines 31-34.)
an inner cover layer disposed about said core,	"Disposed on the spherical center or core 12 is a first layer, lamination, ply or **inner cover 14** of molded hard, high flexural modulus resinous material…." (Nesbitt (Ex. 10), col. 2, lines 34-37.)

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Claim 4	Nesbitt and Molitor '637
said inner cover layer having a Shore D hardness of at least 60,	**Nesbitt**: "[I]nner cover 14 of molded **hard**, high flexural modulus resinous material such as **type 1605 Surlyn® marketed by E.I DuPont de Nemours**." (Nesbitt (Ex. 10) , col. 2, lines 36-38.) **Per the '293 Patent**: "Type 1605 Surlyn® (now designated Surlyn® 8940)." ('293 patent (Ex. 1), col. 2, lines 54-55.) **OFF THE BALL** **DuPont Surlyn® Product Information**: Surlyn® 8940 (formerly Surlyn® 1605) has a Shore D hardness of 66. ('293 patent (Ex. 1), Table 1.) **Nesbitt Incorporates the Materials of Molitor '637 by Reference**: Molitor '637 discloses a blend of two ionomers which has a Shore D hardness of 64.3 when measured "off the ball." (*See* Molitor '637 (Ex. 12), Table 1;"Blend 3" AC 0131414 (Ex. 34).) **ON THE BALL** Measurements of Surlyns made "on the ball" are higher than plaque measurements and would also be above 60. (*See* Nesbitt Depo. Trans. (Ex. 16) at 244:12—244:17.)
said inner cover layer comprising a blend of two or more ionomeric resins, each containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid; and	**Nesbitt Incorporates the Materials of Molitor '637 by Reference**: **Molitor '637**: Molitor teaches, in examples 1-7, cover materials including a blend of two ionomer resins: Surlyn 1605 and Surlyn 1557. (Molitor '637 (Ex. 12), col. 14, line 22 to col. 16, line 34.) Type 1605 Surlyn® is now designated Surlyn® 8940. ('293 patent (Ex. 1), col. 2, lines 54-55.) It has about 15% acid. ('293 patent (Ex. 1), col. 2, lines 55-57.) Type 1557 Surlyn is now designated Surlyn 9650. (DUP 000038 (Ex. 36).) It has an acid content of about 11%. (DUP 000132 (Ex. 37).) Callaway admits that Nesbitt teaches the use of the ionomer blend found in Molitor '637 in a multi-layer golf ball. (*See* Response to Office Action Mailed February 27, 2007 in Reexam. Cont. No. 95/000,120 (Ex. 28) at 16.)

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Claim 4	**Nesbitt and Molitor '637**
an outer cover layer disposed on said inner cover layer,	"An outer layer, ply, lamination or cover 16 … is then remolded onto the inner ply or layer 14…." (Nesbitt (Ex. 10), col. 2, lines 43-47.)
said outer cover layer having a thickness of from about 0.01 to about 0.07 inches,	"The **thickness of the outer layer or cover 16** of soft, low flexural modulus resin such as Surlyn type 1855, **may be in the range of 0.020 inches and 0.100 inches**." (Nesbitt (Ex. 10), col. 3, lines 22-25.) "The **outer layer** of the soft resin is of **a thickness of 0.0575 inches**." (Nesbitt (Ex. 10), col. 3, lines 39-40.)
and comprising a polyurethane material.	**Molitor '637**: Estane 58133 is a "relatively soft polyurethane material." (Molitor '637 (Ex. 12), col. 18.)

Claim 5	**Nesbitt and Molitor '637**
The golf ball of claim 4	See above.
wherein said outer cover exhibits a Shore D hardness of about 64 or less.	**OFF THE BALL** **Nesbitt:** Nesbitt teaches an outer cover layer made of Surlyn® 1855, now Surlyn® 9020 ('293 patent (Ex. 1), col. 2, lines 63-65.) It has a **Shore D hardness of 55** . (*See* CW 00512231 (Ex. 45).) **Nesbitt Incorporates the Materials of Molitor '637 by Reference**: "Reference is made to the application Ser. No. 155,658 of **Robert P. Molitor issued into U.S. Pat. No. 4,274,637** which describes a number of foamable compositions of a character which may be employed for … layers … 16 for the golf ball of this invention." (Nesbitt (Ex. 10), col. 3, lines 54-60.) **Molitor '637**: Teaches the use of **Estane 58133** in Examples 16 and 17. (Molitor '637, col. 18.) Estane is a soft polyurethane material that has a **Shore D hardness of 55 as measured "off the ball**." (CW 00615792 (Ex. 46).) **ON THE BALL** When measured **on the ball of Nesbitt** Molitor '637's outer cover layer has a Shore D hardness of 61.0. (MacKnight Decl. (Ex. 30) at ¶ 33.)

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Claim 6	**Nesbitt and Molitor '637**
The golf ball of claim 4	See above.
wherein said outer cover layer has a thickness of from about 0.01 to about 0.05 inches.	"The **thickness of the outer layer or cover 16** of soft, low flexural modulus resin such as Surlyn type 1855, **may be in the range of 0.020 inches and 0.100 inches**." (Nesbitt (Ex. 10), col. 3, lines 22-25.) "The **outer layer** of the soft resin is of **a thickness of 0.0575 inches**." (Nesbitt (Ex. 10), col. 3, lines 39-40.)

Claim 7	**Nesbitt and Molitor '637**
The golf ball of claim 4	See above.
wherein said outer cover layer has a thickness of from about 0.03 to about 0.06 inches.	"The **thickness of the outer layer or cover 16** of soft, low flexural modulus resin such as Surlyn type 1855, **may be in the range of 0.020 inches and 0.100 inches**." (Nesbitt (Ex. 10), col. 3, lines 22-25.) "The **outer layer** of the soft resin is of **a thickness of 0.0575 inches**." (Nesbitt (Ex. 10), col. 3, lines 39-40.)

Claim 8	**Nesbitt and Molitor '637**
A golf ball comprising:	"The disclosure embraces **a golf ball** and method of making same …." (Nesbitt (Ex. 10), Abstract; FIGS 1 & 2.)
a core:	"Referring to the drawings in detail there is illustrated a golf ball 10 which comprises a **solid center or core** formed as a solid body of resilient polymeric material or rubber-like material in the shape of a sphere." (Nesbitt (Ex. 10), col. 2, lines 31-34.)
an inner cover layer disposed on said core,	"**Disposed on the spherical center or core 12** is a first layer, lamination, ply or **inner cover 14** of molded hard, highly flexural modulus resinous material…." (Nesbitt (Ex. 10), col. 2, lines 34-37.)
said inner cover layer having a Shore D hardness of about 60 or more,	**Nesbitt**: "[I]nner cover 14 of molded **hard**, high flexural modulus resinous material such as **type 1605 Surlyn® marketed by E.I DuPont de Nemours**." (Nesbitt (Ex. 10), col. 2, lines 36-38.) **Per the '293 Patent**: "Type 1605 Surlyn® (now designated Surlyn® 8940)." ('293 patent (Ex. 1), col. 2, lines 54-55.) **OFF THE BALL** **DuPont Surlyn® Product Information**: Surlyn® 8940 (formerly Surlyn® 1605) has a Shore D hardness of 66. ('293 patent (Ex. 1), Table 1.)

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Claim 8	Nesbitt and Molitor '637
	Nesbitt Incorporates the Materials of Molitor '637 by Reference: Molitor '637 discloses a blend of two ionomers which has a Shore D hardness of 64.3 when measured "off the ball." (*See* "Blend 3" AC 0131414 (Ex. 34).) **ON THE BALL** Measurements of Surlyns made "on the ball" are higher than plaque measurements and would also be above 60. (Nesbitt Depo. Trans. (Ex. 16) at 244:12—244:17.)
said inner cover layer comprising an ionomeric resin including no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid	Surlyn® 1605 is a low acid ionomeric resin. **Per the '156 Patent:** "Type 1605 Surlyn® (Surlyn® 8940) is a sodium ion based low acid (less than or equal to 15 weight percent methacrylic acid) ionomer resin…". ('156 patent (Ex. 3), col. 2, lines 46-51.) Methacrylic acid is an alpha, beta-unsaturated carboxylic acid.
and having a modulus of from about 15,000 to about 70,000 psi; and	Surlyn® 1605 inherently exhibits the claimed modulus. "**Type 1605 Surlyn (Surlyn 8940)** is a sodium ion based low acid (less than or equal to 15 weight percent methacrylic acid) ionomer resin having a **flexural modulus of about 51,000 psi.**" ('293 patent (Ex. 1), col. 2, lines 55-59.)
an outer cover layer disposed about said inner cover layer,	"An **outer layer, ply, lamination or cover 16** … is then **remolded onto the inner ply or layer 14**…." (Nesbitt (Ex. 10), col. 2, lines 43-47.)
said outer cover layer having a thickness of from about 0.01 to about 0.07 inches,	"The **thickness of the outer layer or cover 16** of soft, low flexural modulus resin such as Surlyn type 1855, **may be in the range of 0.020 inches and 0.100 inches**." (Nesbitt (Ex. 10), col. 3, lines 22-25.) "The outer layer of the soft resin is of a thickness of **0.0575** inches." (Nesbitt (Ex. 10), col. 3, lines 39-40.)
and comprising a polyurethane material.	**Molitor '637**: Estane 58133 is a polyurethane material. (Molitor '637 (Ex. 12), col. 18.)

Claim 9	Nesbitt and Molitor '637
The golf ball of claim 8	See above.
wherein said outer cover exhibits a Shore D hardness of about 64 or less.	**OFF THE BALL** **Nesbitt:** Nesbitt teaches an outer cover layer made of Surlyn® 1855, now Surlyn® 9020 ('293 patent (Ex. 1), col. 2, lines (63-65.) It has a **Shore D hardness of 55** . (*See* CW 00512231 (Ex. 45).)

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Claim 9	Nesbitt and Molitor '637
	Nesbitt Incorporates the Materials of Molitor '637 by Reference: "Reference is made to the application Ser. No. 155,658 of **Robert P. Molitor issued into U.S. Pat. No. 4,274,637** which describes a number of foamable compositions of a character which may be employed for … layers … 16 for the golf ball of this invention." (Nesbitt (Ex. 10), col. 3, lines 54-60.) **Molitor '637**: Teaches the use of **Estane 58133** in Examples 16 and 17. (Molitor '637, col. 18.) Estane is a soft polyurethane material that has a **Shore D hardness of 55 as measured "off the ball**." (CW 00615792 (Ex. 46).) **ON THE BALL** When measured **on the ball of Nesbitt** Molitor '637's outer cover layer has a Shore D hardness of 61.0. (MacKnight Decl. (Ex. 30) at ¶ 33.)

Claim 10	Nesbitt and Molitor '637
The golf ball of claim 8	See above.
wherein said outer cover layer has a thickness of from about 0.01 to about 0.05 inches.	"The **thickness of the outer layer or cover 16** of soft, low flexural modulus resin such as Surlyn type 1855, **may be in the range of 0.020 inches and 0.100 inches**." (Nesbitt (Ex. 10), col. 3, lines 22-25.) "The outer layer of the soft resin is of a thickness of **0.0575** inches." (Nesbitt (Ex. 10), col. 3, lines 39-40.)

Claim 11	Nesbitt and Molitor '637
The golf ball of claim 8	See above.
wherein said outer cover layer has a thickness of from about 0.03 to about 0.06 inches.	"The **thickness of the outer layer or cover 16** of soft, low flexural modulus resin such as Surlyn type 1855, **may be in the range of 0.020 inches and 0.100 inches**." (Nesbitt (Ex. 10), col. 3, lines 22-25.) "The **outer layer** of the soft resin is of **a thickness of 0.0575 inches**." (Nesbitt (Ex. 10), col. 3, lines 39-40.)

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NESBITT AND WU

Claim 1	**Nesbitt and Wu**
A golf ball comprising:	"The disclosure embraces **a golf ball** and method of making same …." (Nesbitt (Ex. 10), Abstract; FIGS 1 & 2.)
a core;	"Referring to the drawings in detail there is illustrated a golf ball 10 which comprises a **solid center or core** formed as a solid body of resilient polymeric material or rubber-like material in the shape of a sphere." (Nesbitt (Ex. 10), col. 2, lines 31-34.)
an inner cover layer disposed on said core, …	"Disposed on the spherical center or core 12 is a first layer, lamination, ply or **inner cover 14** of molded hard, highly flexural modulus resinous material…." (Nesbitt (Ex. 10), col. 2, lines 34-37.)
said inner cover layer having a Shore D hardness of at least 60,	**Nesbitt**: "[I]nner cover 14 of molded **hard**, high flexural modulus resinous material such as **type 1605 Surlyn® marketed by E.I DuPont de Nemours**." (Nesbitt (Ex. 10), col. 2, lines 36-38.) **Per the '293 Patent**: "Type 1605 Surlyn® (now designated Surlyn® 8940)." ('293 patent (Ex. 10), col. 2, lines 54-55.) **OFF THE BALL** **DuPont Surlyn® Product Information**: Surlyn® 8940 (formerly Surlyn® 1605) has a Shore D hardness of 66. ('293 patent (Ex. 1), Table 1.) **Nesbitt Incorporates the Materials of Molitor '637 by Reference**: Molitor '637 discloses a blend of two ionomers which has a Shore D hardness of 64.3 when measured "off the ball." (*See* "Blend 3" AC 0131414 (Ex. 34).) **ON THE BALL** Measurements of Surlyns made "on the ball" are higher than plaque measurements and would also be above 60. (*See* Nesbitt Depo. Trans. (Ex. 16) at 244:12—244:17.
said inner cover layer comprising a blend of two or more low acid ionomer resins, each containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid; and,	**Nesbitt Incorporates the Materials of Molitor '637 by Reference**: **Molitor '637**: Molitor teaches, in examples 1-7, cover materials including a blend of two ionomer resins: Surlyn 1605 and Surlyn 1557. (Molitor '637 (Ex. 12), col. 14, line 22 to col. 16, line 34.) Type 1605 Surlyn® is now designated Surlyn® 8940. ('293 patent (Ex. 1), col. 2, lines 54-55.) It has about 15% acid. ('293 patent (Ex. 1), col. 2, lines 55-57.)

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Claim 1	**Nesbitt and Wu**
	Type 1557 Surlyn is now designated Surlyn 9650. (DUP 000038 (Ex. 36).) It has an acid content of about 11%. (DUP 000132 (Ex. 37).) Callaway admits that Nesbitt teaches the use of the ionomer blend found in Molitor '637 in a multi-layer golf ball. (*See* Response to Office Action Mailed February 27, 2007 in Reexam. Cont. No. 95/000,120 (Ex. 28) at 16.)
an outer cover layer disposed on said inner cover layer,	"An **outer layer, ply, lamination or cover 16** … is then remolded onto the inner ply or layer 14…." (Nesbitt (Ex. 10), col. 2, lines 43-47.)
said outer cover layer having a Shore D hardness of about 64 or less,	**OFF THE BALL** **Nesbitt:** Nesbitt teaches an outer cover layer made of Surlyn® 1855, now Surlyn® 9020 ('293 patent (Ex. 1), col. 2, lines (63-65.) It has a **Shore D hardness of 55** . (*See* CW 00512231 (Ex. 45).) **Nesbitt Incorporates the Materials of Molitor '637 by Reference**: "Reference is made to the application Ser. No. 155,658 of **Robert P. Molitor issued into U.S. Pat. No. 4,274,637** which describes a number of foamable compositions of a character which may be employed for … layers … 16 for the golf ball of this invention." (Nesbitt (Ex. 10), col. 3, lines 54-60.) **Molitor '637**: Teaches the use of **Estane 58133** in Examples 16 and 17. (Molitor '637, col. 18.) Estane is a soft polyurethane material that has a **Shore D hardness of 55 as measured "off the ball**." (CW 00615792 (Ex. 46).) **ON THE BALL** When measured **on the ball of Nesbitt** Molitor '637's outer cover layer has a Shore D hardness of 61.0. (MacKnight Decl. (Ex. 30) at ¶ 33.) **Wu** **ON THE BALL** Wu's polyurethane (Table 1) has a Shore D hardness of 55.6 when measured on Nesbitt's ball. (MacKnight Decl. at (Ex. 30) ¶ 33.) **OFF THE BALL** Off the ball measurements of polyurethanes are lower than on the ball the measurements (Wu Depo. Trans. (Ex. 33) at 60:14—60:24.) This material had a Shore D hardness of **51.6** when measured "off the ball." (*See* AC0131414 (Ex. 34) showing measurements of MDI prepolymer blend.)

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Claim 1	**Nesbitt and Wu**
a thickness of from about 0.01 to about 0.07 inches,	"It is found that the inner layer of hard, high flexural modulus resinous material such as Surlyn® resin type 1605, is preferably of a thickness in a range of 0.020 inches and 0.070 inches." (Nesbitt (Ex. 10), col. 3, lines 19-23.) "The outer layer of the soft resin is of a thickness of **0.0575** inches." (Nesbitt (Ex. 10), col. 3, lines 39-40.)
and comprising a polyurethane material.	**Molitor '637**: Estane 58133 is a relatively soft polyurethane material. (Molitor '637 (Ex. 12), col. 18.)

Claim 2	**Nesbitt and Wu**
The golf ball of claim 1	See above.
wherein said outer cover layer has a thickness of from about 0.01 to about 0.05 inches.	"It is found that the inner layer of hard, high flexural modulus resinous material such as Surlyn® resin type 1605, is preferably of a thickness in a range of 0.020 inches and 0.070 inches." (Nesbitt (Ex. 10), col. 3, lines 19-23.) "The outer layer of the soft resin is of a thickness of **0.0575** inches." (Nesbitt (Ex. 10), col. 3, lines 39-40.)

Claim 3	**Nesbitt and Wu**
The golf ball of claim 1	See above.
wherein said outer cover layer has a thickness of from about 0.03 to about 0.06 inches.	"The **thickness of the outer layer or cover 16** of soft, low flexural modulus resin such as Surlyn type 1855, **may be in the range of 0.020 inches and 0.100 inches**." (Nesbitt (Ex. 10), col. 3, lines 22-25.) "The **outer layer** of the soft resin is of **a thickness of 0.0575 inches**." (Nesbitt (Ex. 10), col. 3, lines 39-40.)

Claim 4	**Nesbitt and Wu**
A golf ball comprising:	"The disclosure embraces **a golf ball** and method of making same …." (Nesbitt (Ex. 10), Abstract; FIGS 1 & 2.)
a core:	"Referring to the drawings in detail there is illustrated a golf ball 10 which comprises a **solid center or core** formed as a solid body of resilient polymeric material or rubber-like material **in the shape of a sphere**." (Nesbitt (Ex. 10), col. 2, lines 31-34.)

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Claim 4	Nesbitt and Wu
an inner cover layer disposed about said core,	"Disposed on the spherical center or core 12 is a first layer, lamination, ply or **inner cover 14** of molded hard, high flexural modulus resinous material…." (Nesbitt (Ex. 10), col. 2, lines 34-37.)
said inner cover layer having a Shore D hardness of at least 60,	**Nesbitt**: "[I]nner cover 14 of molded **hard**, high flexural modulus resinous material such as **type 1605 Surlyn® marketed by E.I DuPont de Nemours**." (Nesbitt (Ex. 10), col. 2, lines 36-38.) **Per the '293 Patent**: "Type 1605 Surlyn® (now designated Surlyn® 8940)." ('293 patent (Ex. 1), col. 2, lines 54-55.) **OFF THE BALL** **DuPont Surlyn® Product Information**: Surlyn® 8940 (formerly Surlyn® 1605) has a Shore D hardness of 66. ('293 patent (Ex. 1), Table 1.) **Nesbitt Incorporates the Materials of Molitor '637 by Reference**: Molitor '637 discloses a blend of two ionomers which has a Shore D hardness of 64.3 when measured "off the ball." (*See* "Blend 3" AC 0131414 (Ex. 34).) **ON THE BALL** Measurements of Surlyns made "on the ball" are higher than plaque measurements and would also be above 60. (*See* Nesbitt Depo. Trans. (Ex. 16) at 244:12—244:17.)

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Claim 4	Nesbitt and Wu
said inner cover layer comprising a blend of two or more ionomeric resins, each containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid; and	**Nesbitt Incorporates the Materials of Molitor '637 by Reference**: **Molitor '637**: Molitor teaches, in examples 1-7, cover materials including a blend of two ionomer resins: Surlyn 1605 and Surlyn 1557. (Molitor '637 (Ex. 12), col. 14, line 22 to col. 16, line 34.) Type 1605 Surlyn® is now designated Surlyn® 8940. ('293 patent (Ex. 1), col. 2, lines 54-55.) It has about 15% acid. ('293 patent (Ex. 1), col. 2, lines 55-57.) Type 1557 Surlyn is now designated Surlyn 9650. (DUP 000038 (Ex. 36).) It has an acid content of about 11%. (DUP 000132 (Ex. 37).) Callaway admits that Nesbitt teaches the use of the ionomer blend found in Molitor '637 in a multi-layer golf ball. (*See* Response to Office Action Mailed February 27, 2007 in Reexam. Cont. No. 95/000,120 (Ex. 28) at 16.)
an outer cover layer disposed on said inner cover layer,	"An outer layer, ply, lamination or cover 16 … is then remolded onto the inner ply or layer 14…." (Nesbitt (Ex. 10), col. 2, lines 43-47.)
said outer cover layer having a thickness of from about 0.01 to about 0.07 inches,	"The **thickness of the outer layer or cover 16** of soft, low flexural modulus resin such as Surlyn type 1855, **may be in the range of 0.020 inches and 0.100 inches**." (Nesbitt (Ex. 10), col. 3, lines 22-25.) "The **outer layer** of the soft resin is of **a thickness of 0.0575 inches**." (Nesbitt (Ex. 10), col. 3, lines 39-40.)
and comprising a polyurethane material.	**Molitor '637**: Estane 58133 is a "relatively soft polyurethane material." (Molitor '637 (Ex. 12), col. 18.) **Wu** Wu discloses a golf ball cover formulation comprising a polyurethane. (Wu (Ex. 8), Table 1; col. 7, line 10—col. 8, ll. 35; claim 1.)

Claim 5	**Nesbitt and Wu**
The golf ball of claim 4	See above.
wherein said outer cover exhibits a Shore D hardness of about 64 or less.	**OFF THE BALL** **Nesbitt:** Nesbitt teaches an outer cover layer made of Surlyn® 1855, now Surlyn® 9020 ('293 patent (Ex. 1), col. 2, lines (63-65.) It has a **Shore D hardness of 55** . (*See* CW 00512231 (Ex. 46).) **Nesbitt Incorporates the Materials of Molitor '637 by Reference**: "Reference is made to the application Ser. No. 155,658 of **Robert P. Molitor issued into U.S. Pat. No. 4,274,637** which describes a number of foamable compositions of a character which may be employed for … layers … 16 for the golf ball of this invention." (Nesbitt (Ex. 10), col. 3, lines 54-60.) **Molitor '637**: Teaches the use of **Estane 58133** in Examples 16 and 17. (Molitor '637 (Ex. 12), col. 18.) Estane is a soft polyurethane material that has a **Shore D hardness of 55 as measured "off the ball**." (CW 00615792 (Ex. 46).) **ON THE BALL** When measured **on the ball of Nesbitt** Molitor '637's outer cover layer has a Shore D hardness of 61.0. (MacKnight Decl. (Ex. 30) at ¶ 33.) **Wu** **ON THE BALL** Wu's polyurethane (Table 1) has a Shore D hardness of 55.6 when measured on Nesbitt's ball. (MacKnight Decl. (Ex. 30) at ¶ 33.) **OFF THE BALL** Off the ball measurements of polyurethanes are lower than on the ball the measurements (Wu Depo. Trans. (Ex. 33) at 60:14—60:24.) This material had a Shore D hardness of **51.6** when measured "off the ball." (*See* AC0131414 (Ex. 34) showing measurements of MDI prepolymer.)

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Claim 6	**Nesbitt and Wu**
The golf ball of claim 4	See above.
wherein said outer cover layer has a thickness of from about 0.01 to about 0.05 inches.	"The **thickness of the outer layer or cover 16** of soft, low flexural modulus resin such as Surlyn type 1855, **may be in the range of 0.020 inches and 0.100 inches**." (Nesbitt (Ex. 10), col. 3, lines 22-25.) "The **outer layer** of the soft resin is of **a thickness of 0.0575 inches**." (Nesbitt (Ex. 10), col. 3, lines 39-40.)

Claim 7	**Nesbitt and Wu**
The golf ball of claim 4	See above.
wherein said outer cover layer has a thickness of from about 0.03 to about 0.06 inches.	"The **thickness of the outer layer or cover 16** of soft, low flexural modulus resin such as Surlyn type 1855, **may be in the range of 0.020 inches and 0.100 inches**." (Nesbitt (Ex. 10), col. 3, lines 22-25.) "The **outer layer** of the soft resin is of **a thickness of 0.0575 inches**." (Nesbitt (Ex. 10), col. 3, lines 39-40.)

Claim 8	**Nesbitt and Wu**
A golf ball comprising:	"The disclosure embraces **a golf ball** and method of making same …." (Nesbitt (Ex. 10), Abstract; FIGS 1 & 2.)
a core:	"Referring to the drawings in detail there is illustrated a golf ball 10 which comprises a **solid center or core** formed as a solid body of resilient polymeric material or rubber-like material in the shape of a sphere." (Nesbitt (Ex. 10), col. 2, lines 31-34.)
an inner cover layer disposed on said core,	"**Disposed on the spherical center or core 12** is a first layer, lamination, ply or **inner cover 14** of molded hard, highly flexural modulus resinous material…." (Nesbitt (Ex. 10), col. 2, lines 34-37.)
said inner cover layer having a Shore D hardness of about 60 or more,	**Nesbitt**: "[I]nner cover 14 of molded **hard**, high flexural modulus resinous material such as **type 1605 Surlyn® marketed by E.I DuPont de Nemours**." (Nesbitt (Ex. 10), col. 2, lines 36-38.) **Per the '293 Patent**: "Type 1605 Surlyn® (now designated Surlyn® 8940)." ('293 patent (Ex. 1), col. 2, lines 54-55.) **OFF THE BALL** **DuPont Surlyn® Product Information**: Surlyn® 8940 (formerly Surlyn® 1605) has a Shore D hardness of 66. ('293 patent Ex. 1), Table 1.)

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Claim 8	Nesbitt and Wu
	Nesbitt Incorporates the Materials of Molitor '637 by Reference: Molitor '637 discloses a blend of two ionomers which has a Shore D hardness of 64.3 when measured "off the ball." (*See* "Blend 3" AC 0131414 (Ex. 34).) **ON THE BALL** Measurements of Surlyns made "on the ball" are higher than plaque measurements and would also be above 60. (*See* Nesbitt Depo. Trans. (Ex. 16) at 244:12—244:17.)
said inner cover layer comprising an ionomeric resin including no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid	Surlyn® 1605 is a low acid ionomeric resin. **Per the '156 Patent:** "Type 1605 Surlyn® (Surlyn® 8940) is a sodium ion based low acid (less than or equal to 15 weight percent methacrylic acid) ionomer resin…". ('156 patent (Ex. 3), col. 2, lines 46-51.) Methacrylic acid is an alpha, beta-unsaturated carboxylic acid.
and having a modulus of from about 15,000 to about 70,000 psi; and	Surlyn® 1605 inherently exhibits the claimed modulus. "**Type 1605 Surlyn (Surlyn 8940)** is a sodium ion based low acid (less than or equal to 15 weight percent methacrylic acid) ionomer resin having a **flexural modulus of about 51,000 psi.**" ('293 patent (Ex. 1), col. 2, lines 55-59.)
an outer cover layer disposed about said inner cover layer,	"An **outer layer, ply, lamination or cover 16** … is then **remolded onto the inner ply or layer 14**…." (Nesbitt (Ex. 10), col. 2, lines 43-47.)
said outer cover layer having a thickness of from about 0.01 to about 0.07 inches,	"The **thickness of the outer layer or cover 16** of soft, low flexural modulus resin such as Surlyn type 1855, **may be in the range of 0.020 inches and 0.100 inches**." (Nesbitt (Ex. 10), col. 3, lines 22-25.) "The outer layer of the soft resin is of a thickness of **0.0575** inches." (Nesbitt (Ex. 10), col. 3, lines 39-40.)
and comprising a polyurethane material.	**Molitor '637**: Estane 58133 is a polyurethane material. (Molitor '637 (Ex. 12), col. 18.) **Wu** Wu discloses a golf ball cover formulation comprising a polyurethane. (Wu (Ex. 12), Table 1; col. 7, line 10—col. 8, ll. 35; claim 1.)

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Claim 9	**Nesbitt and Wu**
The golf ball of claim 8	See above.
wherein said outer cover exhibits a Shore D hardness of about 64 or less.	**OFF THE BALL** **Nesbitt:** Nesbitt teaches an outer cover layer made of Surlyn® 1855, now Surlyn® 9020 ('293 patent, col. 2, lines (63-65.) It has a **Shore D hardness of 55** . (*See* CW 00512231 (Ex. 45).) **Nesbitt Incorporates the Materials of Molitor '637 by Reference**: "Reference is made to the application Ser. No. 155,658 of **Robert P. Molitor issued into U.S. Pat. No. 4,274,637** which describes a number of foamable compositions of a character which may be employed for … layers … 16 for the golf ball of this invention." (Nesbitt (Ex. 10), col. 3, lines 54-60.) **Molitor '637**: Teaches the use of **Estane 58133** in Examples 16 and 17. (Molitor '637, col. 18.) Estane is a soft polyurethane material that has a **Shore D hardness of 55 as measured "off the ball**." (CW 00615792 (Ex. 46).) **ON THE BALL** When measured **on the ball of Nesbitt** Molitor '637's outer cover layer has a Shore D hardness of 61.0. (MacKnight Decl. (Ex. 30) at ¶ 33.) **Wu** **ON THE BALL** Wu's polyurethane has a Shore D hardness of 55.6 when measured on Nesbitt's ball. (MacKnight Decl. (Ex. 30) at ¶ 33.) **OFF THE BALL** Off the ball measurements of polyurethanes are lower than on the ball the measurements (Wu Depo. Trans. (Ex. 8) at 60:14—60:24.) This material had a Shore D hardness of **51.6** when measured "off the ball." (*See* AC0131414 (Ex. 34) showing measurements of MDI prepolymer.)

Claim 10	**Nesbitt and Wu**
The golf ball of claim 8	See above.
wherein said outer cover layer has a thickness of from about 0.01 to about 0.05 inches.	"The **thickness of the outer layer or cover 16** of soft, low flexural modulus resin such as Surlyn type 1855, **may be in the range of 0.020 inches and 0.100 inches**." (Nesbitt (Ex. 10), col. 3, lines 22-25.)

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Claim 10	**Nesbitt and Wu**
	"The outer layer of the soft resin is of a thickness of **0.0575** inches." (Nesbitt (Ex. 10), col. 3, lines 39-40.)

Claim 11	**Nesbitt and Wu**
The golf ball of claim 8	See above.
wherein said outer cover layer has a thickness of from about 0.03 to about 0.06 inches.	"The **thickness of the outer layer or cover 16** of soft, low flexural modulus resin such as Surlyn type 1855, **may be in the range of 0.020 inches and 0.100 inches**." (Nesbitt (Ex. 10), col. 3, lines 22-25.) "The **outer layer** of the soft resin is of **a thickness of 0.0575 inches**." (Nesbitt (Ex. 10), col. 3, lines 39-40.)

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NESBIT AND MOLITOR '751

Claim 1	**Nesbitt and Molitor '751**
A golf ball comprising:	"The disclosure embraces **a golf ball** and method of making same …." (Nesbitt (Ex. 10), Abstract; FIGS 1 & 2.)
a core;	"Referring to the drawings in detail there is illustrated a golf ball 10 which comprises a **solid center or core** formed as a solid body of resilient polymeric material or rubber-like material in the shape of a sphere." (Nesbitt (Ex. 10), col. 2, lines 31-34.)
an inner cover layer disposed on said core, …	"Disposed on the spherical center or core 12 is a first layer, lamination, ply or **inner cover 14** of molded hard, highly flexural modulus resinous material…." (Nesbitt (Ex. 10), col. 2, lines 34-37.)
said inner cover layer having a Shore D hardness of at least 60,	**Nesbitt**: "[I]nner cover 14 of molded **hard**, high flexural modulus resinous material such as **type 1605 Surlyn® marketed by E.I DuPont de Nemours**." (Nesbitt (Ex. 10), col. 2, lines 36-38.) **Per the '293 Patent**: "Type 1605 Surlyn® (now designated Surlyn® 8940)." ('293 patent (Ex. 1), col. 2, lines 54-55.) **OFF THE BALL** **DuPont Surlyn® Product Information**: Surlyn® 8940 (formerly Surlyn® 1605) has a Shore D hardness of 66. ('293 patent (Ex. 1), Table 1.) **Nesbitt Incorporates the Materials of Molitor '637 by Reference**: Molitor '637 discloses a blend of two ionomers which has a Shore D hardness of 64.3 when measured "off the ball." (*See* "Blend 3" AC 0131414 (Ex. 34).) **ON THE BALL** Measurements of Surlyns made "on the ball" are higher than plaque measurements and would also be above 60. *See* Nesbitt Depo. Trans. (Ex. 16) at 244:12—244:17.)
said inner cover layer comprising a blend of two or more low acid ionomer resins, each containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid; and,	**Nesbitt Incorporates the Materials of Molitor '637 by Reference**: **Molitor '637**: Molitor teaches, in examples 1-7, cover materials including a blend of two ionomer resins: Surlyn 1605 and Surlyn 1557. (Molitor '637 (Ex. 12), col. 14, line 22 to col. 16, line 34.) Type 1605 Surlyn® is now designated Surlyn® 8940. ('293 patent, col. 2, lines 54-55.) It has about 15% acid. ('293 patent (Ex. 1), col. 2, lines 55-57.)

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Claim 1	**Nesbitt and Molitor '751**
	Type 1557 Surlyn is now designated Surlyn 9650. (DUP 000038 (Ex. 36).) It has an acid content of about 11%. (DUP 000132 (Ex. 37).) Callaway admits that Nesbitt teaches the use of the ionomer blend found in Molitor '637 in a multi-layer golf ball. (*See* Response to Office Action Mailed February 27, 2007 in Reexam. Cont. No. 95/000,120 (Ex. 28) at 16.) **Molitor '751** Molitor '751 teaches blends comprising Surlyn 1605 (8940), Surlyn 1706 (9910). (Molitor '751 (Ex. 13), Table 1.) Each of these materials is less than 16% acid (*See* '293 patent (Ex. 1), col. 8, lines 20-27.)
an outer cover layer disposed on said inner cover layer,	"An **outer layer, ply, lamination or cover 16** … is then remolded onto the inner ply or layer 14…." (Nesbitt (Ex. 10), col. 2, lines 43-47.)
said outer cover layer having a Shore D hardness of about 64 or less,	**OFF THE BALL** **Nesbitt:** Nesbitt teaches an outer cover layer made of Surlyn® 1855, now Surlyn® 9020 ('293 patent, col. 2, lines (63-65.) It has a **Shore D hardness of 55** . (*See* CW 00512231 (Ex. 45).) **Nesbitt Incorporates the Materials of Molitor '637 by Reference**: "Reference is made to the application Ser. No. 155,658 of **Robert P. Molitor issued into U.S. Pat. No. 4,274,637** which describes a number of foamable compositions of a character which may be employed for … layers … 16 for the golf ball of this invention." (Nesbitt (Ex. 10), col. 3, lines 54-60.) **Molitor '637**: Teaches the use of **Estane 58133** in Examples 16 and 17. (Molitor '637, col. 18.) Estane is a soft polyurethane material that has a **Shore D hardness of 55 as measured "off the ball**." (CW 00615792 (Ex. 46).) **ON THE BALL** When measured **on the ball of Nesbitt** Molitor '637's outer cover layer has a Shore D hardness of 61.0. (MacKnight Decl. (Ex. 30) at ¶ 33.) **Molitor '751:** **ON THE BALL** Molitor '751 discloses the following blend as the most preferred (Ex. 13, col. 7, line 25, Table):

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<table>
<tr><th>Claim 1</th><th>Nesbitt and Molitor ‘751</th></tr>
<tr><td></td><td>
<table>
<tr><th>Material</th><th>Parts</th></tr>
<tr><td>Texin 480 AR (now 285)</td><td>90</td></tr>
<tr><td>Surlyn 1605 (now 8940)</td><td>10</td></tr>
<tr><td>TiO2</td><td>5</td></tr>
<tr><td>Fluorescent Brightener</td><td>0.10</td></tr>
<tr><td>Antioxidant</td><td>0.17</td></tr>
<tr><td>Pigment</td><td>0.02</td></tr>
<tr><td>Release Agent</td><td>1</td></tr>
</table>
When measured on Nesbitt’s ball, this cover has a Shore D hardness of hardness of 49.6. (MacKnight Decl. (Ex. 30) at ¶ 33).
<u>OFF THE BALL</u>
When measured off the ball, this formulation had a Shore D hardness of 39.5 (See “Texin Blend” average Shore D hardness at AC 0131414 (Ex. 34).)
</td></tr>
<tr><td>a thickness of from about 0.01 to about 0.07 inches,</td><td>“It is found that the inner layer of hard, high flexural modulus resinous material such as Surlyn® resin type 1605, is preferably of a thickness in a range of 0.020 inches and 0.070 inches.” (Nesbitt (Ex. 10), col. 3, lines 19-23.)
“The outer layer of the soft resin is of a thickness of 0.0575 inches.” (Nesbitt (Ex. 10), col. 3, lines 39-40.)</td></tr>
<tr><td>and comprising a polyurethane material.</td><td><u>Molitor ’637</u>: Estane 58133 is a relatively soft polyurethane material. (Molitor ’637 (Ex. 12, col. 18.)
<u>Molitor ‘751:</u>
“The preferred components of the cover material comprise a thermoplastic polyurethane . . . .” (Molitor ‘751 (Ex. 13), col. 3, lines 6-7.)</td></tr>
</table>

Claim 2	Nesbitt and Molitor ‘751
The golf ball of claim 1	See above.
wherein said outer cover layer has a thickness of from about 0.01 to about 0.05 inches.	“It is found that the inner layer of hard, high flexural modulus resinous material such as Surlyn® resin type 1605, is preferably of a thickness in a range of 0.020

Claim 2	**Nesbitt and Molitor '751**
	inches and 0.070 inches." (Nesbitt (Ex. 10), col. 3, lines 19-23.) "The outer layer of the soft resin is of a thickness of **0.0575** inches." (Nesbitt (Ex. 10), col. 3, lines 39-40.)

Claim 3	**Nesbitt and Molitor '751**
The golf ball of claim 1	See above.
wherein said outer cover layer has a thickness of from about 0.03 to about 0.06 inches.	"It is found that the inner layer of hard, high flexural modulus resinous material such as Surlyn® resin type 1605, is preferably of a thickness in a range of 0.020 inches and 0.070 inches." (Nesbitt (Ex. 10), col. 3, lines 19-23.) "The outer layer of the soft resin is of a thickness of **0.0575** inches." (Nesbitt (Ex. 10), col. 3, lines 39-40.)

Claim 4	**Nesbitt and Molitor '751**
A golf ball comprising:	"The disclosure embraces **a golf ball** and method of making same …." (Nesbitt (Ex. 10), Abstract; FIGS 1 & 2.)
a core:	"Referring to the drawings in detail there is illustrated a golf ball 10 which comprises a **solid center or core** formed as a solid body of resilient polymeric material or rubber-like material **in the shape of a sphere**." (Nesbitt (Ex. 10), col. 2, lines 31-34.)
an inner cover layer disposed about said core,	"Disposed on the spherical center or core 12 is a first layer, lamination, ply or **inner cover 14** of molded hard, high flexural modulus resinous material…." (Nesbitt (Ex. 10), col. 2, lines 34-37.)

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Claim 4	Nesbitt and Molitor '751
said inner cover layer having a Shore D hardness of at least 60,	**Nesbitt**: "[I]nner cover 14 of molded **hard**, high flexural modulus resinous material such as **type 1605 Surlyn® marketed by E.I DuPont de Nemours**." (Nesbitt (Ex. 10), col. 2, lines 36-38.) **Per the '293 Patent**: "Type 1605 Surlyn® (now designated Surlyn® 8940)." ('293 patent (Ex. 10), col. 2, lines 54-55.) **OFF THE BALL** **DuPont Surlyn® Product Information**: Surlyn® 8940 (formerly Surlyn® 1605) has a Shore D hardness of 66. ('293 patent (Ex. 10), Table 1.) **Nesbitt Incorporates the Materials of Molitor '637 by Reference**: Molitor '637 discloses a blend of two ionomers which has a Shore D hardness of 64.3 when measured "off the ball." (*See* "Blend 3" AC 0131414 (Ex. 34).) **ON THE BALL** Measurements of Surlyns made "on the ball" are higher than plaque measurements and would also be above 60. (Nesbitt Depo. Trans. (Ex. 16) at 244:12—244:17.)
said inner cover layer comprising a blend of two or more ionomeric resins, each containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid; and	**Nesbitt Incorporates the Materials of Molitor '637 by Reference**: **Molitor '637**: Molitor teaches, in examples 1-7, cover materials including a blend of two ionomer resins: Surlyn 1605 and Surlyn 1557. (Molitor '637 (Ex. 12), col. 14, line 22 to col. 16, line 34.) Type 1605 Surlyn® is now designated Surlyn® 8940. ('293 patent (Ex. 1), col. 2, lines 54-55.) It has about 15% acid. ('293 patent (Ex. 1), col. 2, lines 55-57.) Type 1557 Surlyn is now designated Surlyn 9650. (DUP 000038 (Ex. 36).) It has an acid content of about 11%. (DUP 000132 (Ex. 37).) Callaway admits that Nesbitt teaches the use of the ionomer blend found in Molitor '637 in a multi-layer golf ball. (*See* Response to Office Action Mailed February 27, 2007 in Reexam. Cont. No. 95/000,120 (Ex. 28) at 16.)
an outer cover layer disposed on said inner cover layer,	"An outer layer, ply, lamination or cover 16 … is then remolded onto the inner ply or layer 14…." (Nesbitt (Ex. 10), col. 2, lines 43-47.)

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Claim 4	**Nesbitt and Molitor '751**
said outer cover layer having a thickness of from about 0.01 to about 0.07 inches,	"The **thickness of the outer layer or cover 16** of soft, low flexural modulus resin such as Surlyn type 1855, **may be in the range of 0.020 inches and 0.100 inches**." (Nesbitt (Ex. 10), col. 3, lines 22-25.) "The **outer layer** of the soft resin is of **a thickness of 0.0575 inches**." (Nesbitt (Ex. 10), col. 3, lines 39-40.)
and comprising a polyurethane material.	**Molitor '637**: Estane 58133 is a "relatively soft polyurethane material." (Molitor '637 (Ex. 12), col. 18.) **Molitor '751:** "The preferred components of the cover material comprise a thermoplastic polyurethane . . . ." (Molitor '751 (Ex. 13), col. 3, lines 6-7.)

Claim 5	**Nesbitt and Molitor '751**
The golf ball of claim 4	See above.
wherein said outer cover exhibits a Shore D hardness of about 64 or less.	**OFF THE BALL** **Nesbitt:** Nesbitt teaches an outer cover layer made of Surlyn® 1855, now Surlyn® 9020 ('293 patent, col. 2, lines (63-65.) It has a **Shore D hardness of 55** . (*See* CW 00512231 (Ex. 45).) **Nesbitt Incorporates the Materials of Molitor '637 by Reference**: "Reference is made to the application Ser. No. 155,658 of **Robert P. Molitor issued into U.S. Pat. No. 4,274,637** which describes a number of foamable compositions of a character which may be employed for … layers … 16 for the golf ball of this invention." (Nesbitt (Ex. 10), col. 3, lines 54-60.) **Molitor '637**: Teaches the use of **Estane 58133** in Examples 16 and 17. (Molitor '637, col. 18.) Estane is a soft polyurethane material that has a **Shore D hardness of 55 as measured "off the ball**." (CW 00615792 (Ex. 46).) **ON THE BALL** When measured **on the ball of Nesbitt** Molitor '637's outer cover layer has a Shore D hardness of 61.0. (MacKnight Decl. (Ex. 30) at ¶ 33.)

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<table>
<tr><th>Claim 5</th><th>Nesbitt and Molitor ‘751</th></tr>
<tr><td></td><td><u>Molitor ‘751:</u>
<u>ON THE BALL</u>
Molitor ‘751 discloses the following blend as the most preferred (Molitor ‘751 (Ex. 13), col. 7, line 25, Table):
<table>
<tr><th>Material</th><th>Parts</th></tr>
<tr><td>Texin 480 AR (now 285)</td><td>90</td></tr>
<tr><td>Surlyn 1605 (now 8940)</td><td>10</td></tr>
<tr><td>TiO2</td><td>5</td></tr>
<tr><td>Fluorescent Brightener</td><td>0.10</td></tr>
<tr><td>Antioxidant</td><td>0.17</td></tr>
<tr><td>Pigment</td><td>0.02</td></tr>
<tr><td>Release Agent</td><td>1</td></tr>
</table>
When measured on Nesbitt’s ball, this cover has a Shore D hardness of hardness of 49.6. (MacKnight Decl. (Ex. 30) at ¶ 33).
<u>OFF THE BALL</u>
When measured off the ball, this formulation had a Shore D hardness of 39.5 (See “Texin Blend” average Shore D hardness at AC 0131414 (Ex. 34).)</td></tr>
</table>

Claim 6	Nesbitt and Molitor ‘751
The golf ball of claim 4	See above.
wherein said outer cover layer has a thickness of from about 0.01 to about 0.05 inches.	“The **thickness of the outer layer or cover 16** of soft, low flexural modulus resin such as Surlyn type 1855, **may be in the range of 0.020 inches and 0.100 inches**.” (Nesbitt (Ex. 10), col. 3, lines 22-25.) “The **outer layer** of the soft resin is of **a thickness of 0.0575 inches**.” (Nesbitt (Ex. 10), col. 3, lines 39-40.)

Claim 7	Nesbitt and Molitor ‘751
The golf ball of claim 4	See above.
wherein said outer cover layer has a thickness of from about 0.03 to	“The **thickness of the outer layer or cover 16** of soft, low flexural modulus resin such as Surlyn type 1855,

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Claim 7	**Nesbitt and Molitor '751**
about 0.06 inches.	**may be in the range of 0.020 inches and 0.100 inches**." (Nesbitt (Ex. 10), col. 3, lines 22-25.) "The **outer layer** of the soft resin is of **a thickness of 0.0575 inches**." (Nesbitt (Ex. 10), col. 3, lines 39-40.)

Claim 8	**Nesbitt and Molitor '751**
A golf ball comprising:	"The disclosure embraces **a golf ball** and method of making same …." (Nesbitt (Ex. 10), Abstract; FIGS 1 & 2.)
a core:	"Referring to the drawings in detail there is illustrated a golf ball 10 which comprises a **solid center or core** formed as a solid body of resilient polymeric material or rubber-like material in the shape of a sphere." (Nesbitt (Ex. 10), col. 2, lines 31-34.)
an inner cover layer disposed on said core,	"**Disposed on the spherical center or core 12** is a first layer, lamination, ply or **inner cover 14** of molded hard, highly flexural modulus resinous material…." (Nesbitt (Ex. 10), col. 2, lines 34-37.)
said inner cover layer having a Shore D hardness of about 60 or more,	**Nesbitt**: "[I]nner cover 14 of molded **hard**, high flexural modulus resinous material such as **type 1605 Surlyn® marketed by E.I DuPont de Nemours**." (Nesbitt, col. 2, lines 36-38.) **Per the '293 Patent**: "Type 1605 Surlyn® (now designated Surlyn® 8940)." ('293 patent, col. 2, lines 54-55.) **OFF THE BALL** **DuPont Surlyn® Product Information**: Surlyn® 8940 (formerly Surlyn® 1605) has a Shore D hardness of 66. ('293 patent (Ex. 1), Table 1.) **Nesbitt Incorporates the Materials of Molitor '637 by Reference**: Molitor '637 discloses a blend of two ionomers which has a Shore D hardness of 64.3 when measured "off the ball." (*See* "Blend 3" AC 0131414 (Ex. 34).) **ON THE BALL** Measurements of Surlyns made "on the ball" are higher than plaque measurements and would also be above 60. (Nesbitt Depo. Trans. (Ex. 16) at 244:12—244:17.)
said inner cover layer comprising an ionomeric resin including no more than 16% by weight of an alpha, beta-	Surlyn® 1605 is a low acid ionomeric resin. **Per the '156 Patent:** "Type 1605 Surlyn® (Surlyn® 8940) is a sodium ion based low acid (less than or equal to 15 weight percent methacrylic acid)

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Claim 8	Nesbitt and Molitor '751
unsaturated carboxylic acid	ionomer resin…". ('156 patent (Ex. 1), col. 2, lines 46-51.) Methacrylic acid is an alpha, beta-unsaturated carboxylic acid.
and having a modulus of from about 15,000 to about 70,000 psi; and	Surlyn® 1605 inherently exhibits the claimed modulus. "**Type 1605 Surlyn (Surlyn 8940)** is a sodium ion based low acid (less than or equal to 15 weight percent methacrylic acid) ionomer resin having a **flexural modulus of about 51,000 psi.**" ('293 patent (Ex. 1), col. 2, lines 55-59.)
an outer cover layer disposed about said inner cover layer,	"An **outer layer, ply, lamination or cover 16** … is then **remolded onto the inner ply or layer 14**…." (Nesbitt (Ex. 10), col. 2, lines 43-47.)
said outer cover layer having a thickness of from about 0.01 to about 0.07 inches,	"The **thickness of the outer layer or cover 16** of soft, low flexural modulus resin such as Surlyn type 1855, **may be in the range of 0.020 inches and 0.100 inches**." (Nesbitt (Ex. 10), col. 3, lines 22-25.) "The outer layer of the soft resin is of a thickness of **0.0575** inches." (Nesbitt (Ex. 10), col. 3, lines 39-40.)
and comprising a polyurethane material.	**Molitor '637**: Estane 58133 is a polyurethane material. (Molitor '637 (Ex. 12), col. 18.) **Molitor '751:** "The preferred components of the cover material comprise a thermoplastic polyurethane . . . ." (Molitor '751 (Ex. 13), col. 3, lines 6-7.)

Claim 9	Nesbitt and Molitor '751
The golf ball of claim 8	See above.
wherein said outer cover exhibits a Shore D hardness of about 64 or less.	**OFF THE BALL** **Nesbitt:** Nesbitt teaches an outer cover layer made of Surlyn® 1855, now Surlyn® 9020 ('293 patent, col. 2, lines (63-65.) It has a **Shore D hardness of 55** . (*See* CW 00512231 (Ex. 45).) **Nesbitt Incorporates the Materials of Molitor '637 by Reference**: "Reference is made to the application Ser. No. 155,658 of **Robert P. Molitor issued into U.S. Pat. No. 4,274,637** which describes a number of foamable compositions of a character which may be employed for … layers … 16 for the golf ball of this invention." (Nesbitt (Ex. 10), col. 3, lines 54-60.)

<table>
<tr><th>Claim 9</th><th>Nesbitt and Molitor ‘751</th></tr>
<tr><td></td><td>
<u>Molitor ’637</u>: Teaches the use of Estane 58133 in Examples 16 and 17. (Molitor ’637, col. 18.) Estane is a soft polyurethane material that has a Shore D hardness of 55 as measured “off the ball.” (CW 00615792 (Ex. 46).)
<u>ON THE BALL</u>
When measured on the ball of Nesbitt Molitor ‘637’s outer cover layer has a Shore D hardness of 61.0. (MacKnight Decl. (Ex. 30) at ¶ 33.)
<u>Molitor ‘751:</u>
<u>ON THE BALL</u>
Molitor ‘751 discloses the following blend as the most preferred (Ex. 13, col. 7, line 25, Table):
<table>
<tr><th>Material</th><th>Parts</th></tr>
<tr><td>Texin 480 AR (now 285)</td><td>90</td></tr>
<tr><td>Surlyn 1605 (now 8940)</td><td>10</td></tr>
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<tr><td>Release Agent</td><td>1</td></tr>
</table>
When measured on Nesbitt’s ball, this cover has a Shore D hardness of hardness of 49.6. (MacKnight Decl. (Ex. 30) at ¶ 33).
<u>OFF THE BALL</u>
When measured off the ball, this formulation had a Shore D hardness of 39.5 (See “Texin Blend” average Shore D hardness at AC 0131414 (Ex. 34).)
</td></tr>
</table>

Claim 10	Nesbitt and Molitor ‘751
The golf ball of claim 8	See above.
wherein said outer cover layer has a thickness of from about 0.01 to about 0.05 inches.	“The **thickness of the outer layer or cover 16** of soft, low flexural modulus resin such as Surlyn type 1855, **may be in the range of 0.020 inches and 0.100 inches**.” (Nesbitt (Ex. 10), col. 3, lines 22-25.)

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Claim 10	**Nesbitt and Molitor '751**
	"The outer layer of the soft resin is of a thickness of **0.0575** inches." (Nesbitt (Ex. 10), col. 3, lines 39-40.)

Claim 11	**Nesbitt and Molitor '751**
The golf ball of claim 8	See above.
wherein said outer cover layer has a thickness of from about 0.03 to about 0.06 inches.	"The **thickness of the outer layer or cover 16** of soft, low flexural modulus resin such as Surlyn type 1855, **may be in the range of 0.020 inches and 0.100 inches**." (Nesbitt (Ex. 10), col. 3, lines 22-25.) "The **outer layer** of the soft resin is of **a thickness of 0.0575 inches**." (Nesbitt (Ex. 10), col. 3, lines 39-40.)

PROUDFIT AND MOLITOR '637

Claim 1	**Proudfit and Molitor '637**
A golf ball comprising:	"This **invention relates to golf balls**, and more particularly, to a golf ball having a two-layer cover." (Proudfit (Ex. 5), col. 1, lines 11-12.)
a core;	"FIG. 1 illustrates a two-piece golf ball 10 which includes a **solid core 11** and a cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins and a relatively soft outer layer 14 of polymeric material." (Proudfit (Ex. 5), col. 7, lines 21-24.) "Two specific **solid core compositions** used with the new two-layer cover had the composition described in Table 1. **One core** was used in a golf ball which was designated as a 90 compression ball, and **the other core** was used in a golf ball which was designated as a 100 compression ball." (Proudfit (Ex. 5), col. 7, lines 51-55.)
an inner cover layer disposed on said core,	"FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a **cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins** and a relatively soft outer layer 14 of polymeric material." (Proudfit (Ex. 5), col. 7, lines 21-24.)
said inner cover layer having a Shore D hardness of at least 60,	"The composition of the inner cover layer is described in Table 6." TABLE 6 Composition of Inner Layer of Cover (Parts by Weight) Ionomer Type — Blend Ratio Sodium- Surlyn 8940 — 75% Zinc- Surlyn 9910 — 25% (col. 8, lines 22-30.) Surlyn® 8940 has a Shore D hardness of 66; Surlyn® 9910 has a Shore D hardness of 64 (CW 00512231 (45).) Therefore, this cover blend has a hardness of 60 or more when measured off the ball, specifically 64.7. (*See* "Blend 2" described in AC 0131414 (Ex. 34).) "The inner layer can be molded in one of two methods: 1. Injection molded over the core in a manner which is conventionally used to injection mold ionomers over a solid core. 2. Injection mold halfshells, place halfshells over the core,

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Claim 1	**Proudfit and Molitor '637**
	compression mold the inner cover over the core." (Proudfit (Ex. 5), col. 8, lines 32-38.)
said inner cover layer comprising a blend of two or more low acid ionomer resins, each containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid; and	"The composition of the inner cover layer is described in Table 6." **TABLE 6** Composition of Inner Layer of Cover (Parts by Weight) Ionomer Type — Blend Ratio Sodium- Surlyn 8940 — 75% Zinc- Surlyn 9910 — 25% (Proudfit (Ex. 5), col. 8, lines 22-30.) Surlyn® 8940 and Surlyn® 9910 are both low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid. (*See* '293 patent (Ex. 1), col. 8, lines 20-27.)
an outer cover layer disposed on said inner cover layer,	"FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a **cover 12 which comprises** a relatively hard inner layer 13 of one or more ionomer resins and **a relatively soft outer layer 14 of polymeric material.**" (Proudfit (Ex. 5), col. 7, lines 21-24.)
said outer cover layer having a Shore D hardness of about 64 or less,	"… an **outer layer of soft material** such as balata or a blend of balata and other elastomers." (Proudfit (Ex. 5), col. 5, lines 15-17.) Balata has a Shore D hardness of less than 64. (*See* Decl. of Edmund A. Hebert (Ex. 25) at ¶ 7; Nesbitt Depo. Trans. (Ex. 16) at 121:2—121:5.). The Wilson Ultra Tour Balata Ball, which is made according to the Proudfit patent (*See* CW 0302942-47 (Ex.) has a Shore D hardness of less than 64 when measured on the ball. (*See* AC 0131413.) "… an **outer layer of soft material** such as balata or a blend of balata and other elastomers." (col. 5, lines 15-17.) Balata has a Shore D hardness of less than 64. (*See* Decl. of Edmund A. Hebert at ¶ 7; Nesbitt Depo. Trans. (Ex. 16) at 121:2—121:5.). The Wilson Ultra Tour Balata Ball, which is made according to the Proudfit patent (*See* CW 0302942-47) has a Shore D hardness of less than 64 when measured on the ball. (*See* AC 0131413 (Ex. 34).) **Molitor '637**: Teaches the use of **Estane 58133** in Examples 16 and 17. (Molitor '637, col. 18.) Estane is a soft polyurethane material that has a **Shore D hardness of 55 as measured "off the ball**." (CW 00615792 (Ex. 46).)

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Claim 1	**Proudfit and Molitor '637**
	ON THE BALL When measured **on the ball of Proudfit** Molitor '637's outer cover layer has a Shore D hardness of **59.4**. (MacKnight Decl. (Ex. 30) at ¶ 33.)
a thickness of from about 0.01 to about 0.07 inches,	"The **thickness of the outer layer can be** within the range of about **0.0450 to 0.0650 inch** to provide a total ball diameter of 1.680 inch. The preferred dimensions are … an **outer layer thickness of 0.0525 inch**…." (Proudfit (Ex. 5), col. 7, lines 40-46.)
and comprising a polyurethane material.	"… an **outer layer** of soft material such as balata or **a blend of balata and other elastomers**." (Proudfit (Ex. 5), col. 5, lines 15-17.) **Molitor '637**: Estane 58133 is a relatively soft polyurethane material. (Molitor '637 (Ex. 12), col. 18.)

Claim 2	**Proudfit and Molitor '637**
The golf ball of claim 1	See above.
wherein said outer cover layer has a thickness of from about 0.01 to about 0.05 inches.	"The **thickness of the outer layer can be** within the range of about **0.0450 to 0.0650 inch** to provide a total ball diameter of 1.680 inch. The preferred dimensions are … an **outer layer thickness of 0.0525 inch**…." (Proudfit (Ex. 5), col. 7, lines 40-46.)

Claim 3	**Proudfit and Molitor '637**
The golf ball of claim 1	See above.
wherein said outer cover layer has a thickness of from about 0.03 to about 0.06 inches.	"The **thickness of the outer layer can be** within the range of about **0.0450 to 0.0650 inch** to provide a total ball diameter of 1.680 inch. The preferred dimensions are … an **outer layer thickness of 0.0525 inch**…." (Proudfit (Ex. 5), col. 7, lines 40-46.)

Claim 4	**Proudfit and Molitor '637**
A golf ball comprising:	"This **invention relates to golf balls**, and more particularly, to a golf ball having a **two-layer cover**." (Proudfit (Ex. 5), col. 1, lines 11-12.)
a core:	"FIG. 1 illustrates a two-piece golf ball 10 which includes a **solid core 11** and a cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins and a relatively soft outer layer 14 of polymeric material." (Proudfit (Ex. 5), col. 7, lines

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Claim 4	Proudfit and Molitor '637
	21-24; FIGS 1, 2.) "Two specific **solid core compositions** used with the new two-layer cover had the composition described in Table 1. **One core** was used in a golf ball which was designated as a 90 compression ball, and **the other core** was used in a golf ball which was designated as a 100 compression ball." (Proudfit (Ex. 5), col. 7, lines 51-55.)
an inner cover layer disposed about said core,	"FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a **cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins** and a relatively soft outer layer 14 of polymeric material." (Proudfit (Ex. 5), col. 7, lines 21-24.)
said inner cover layer having a Shore D hardness of at least 60,	"The composition of the inner cover layer is described in Table 6." TABLE 6 Composition of Inner Layer of Cover (Parts by Weight) Ionomer Type — Blend Ratio Sodium- Surlyn 8940 — 75% Zinc- Surlyn 9910 — 25% (col. 8, lines 22-30.) Surlyn® 8940 has a Shore D hardness of 66; Surlyn® 9910 has a Shore D hardness of 64 (CW 00512231 (Ex. 45).) Therefore, this cover blend has a hardness of 60 or more when measured off the ball, specifically 64.7. (*See* "Blend 2" described in AC 0131414 (Ex. 34).) "The inner layer can be molded in one of two methods: 1. **Injection molded** over the core in a manner which is conventionally used to injection mold ionomers over a solid core. 2. Injection mold halfshells, place halfshells over the core, **compression mold the inner cover over the core**." (Proudfit (Ex. 5), col. 8, lines 32-38.)
said inner cover layer comprising a blend of two or more ionomeric resins, each containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid; and	"The composition of the inner cover layer is described in Table 6." TABLE 6 Composition of Inner Layer of Cover (Parts by Weight) Ionomer Type — Blend Ratio Sodium- Surlyn 8940 — 75% Zinc- Surlyn 9910 — 25% (Proudfit (Ex. 5), col. 8, lines 22-30.)

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Claim 4	**Proudfit and Molitor '637**
	Surlyn® 8940 and Surlyn® 9910 are both low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid. (*See* '293 patent (Ex. 1), col. 8, lines 20-27.)
an outer cover layer disposed on said inner cover layer,	"… an **outer layer of soft material** such as balata or a blend of balata and other elastomers." (Proudfit (Ex. 5), col. 5, lines 15-17.) "FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a **cover 12 which comprises** a relatively hard inner layer 13 of one or more ionomer resins and **a relatively soft outer layer 14 of polymeric material.**" (Proudfit (Ex. 5), col. 7, lines 21-24.)
said outer cover layer having a thickness of from about 0.01 to about 0.07 inches,	"The **thickness of the outer layer can be** within the range of about **0.0450 to 0.0650 inch** to provide a total ball diameter of 1.680 inch. The preferred dimensions are … an **outer layer thickness of 0.0525 inch**…." Proudfit (Proudfit (Ex. 5), col. 7, lines 40-46.)
and comprising a polyurethane material.	"… an **outer layer** of soft material such as **balata or a blend of balata and other elastomers**." (Proudfit (Ex. 5), col. 5, lines 15-17.) **Molitor '637**: Estane 58133 is a relatively soft polyurethane material. (Molitor '637 (Ex. 12), col. 18.)

Claim 5	**Proudfit and Molitor '637**
The golf ball of claim 4	See above.
wherein said outer cover exhibits a Shore D hardness of about 64 or less.	"… an **outer layer of soft material** such as balata or a blend of balata and other elastomers." (col. 5, lines 15-17.) Balata has a Shore D hardness of less than 64. (*See* Decl. of Edmund A. Hebert at ¶ 7; Nesbitt Depo. Trans. (Ex. 16) at 121:2—121:5.). The Wilson Ultra Tour Balata Ball, which is made according to the Proudfit patent (*See* CW 0302942-47) has a Shore D hardness of less than 64 when measured on the ball. (*See* AC 0131413 (Ex. 34).) "… an **outer layer of soft material** such as balata or a blend of balata and other elastomers." (col. 5, lines 15-17.) Balata has a Shore D hardness of less than 64. (*See* Decl. of Edmund A. Hebert (Ex. 25) at ¶ 7; Nesbitt Depo. Trans. (Ex. 16) at 121:2—121:5.).

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Claim 5	Proudfit and Molitor '637
	The Wilson Ultra Tour Balata Ball, which is made according to the Proudfit patent (*See* CW 0302942-47) has a Shore D hardness of less than 64 when measured on the ball. (*See* AC 0131413 (Ex. 34).) **Molitor '637**: Teaches the use of **Estane 58133** in Examples 16 and 17. (Molitor '637, col. 18.) Estane is a soft polyurethane material that has a **Shore D hardness of 55 as measured "off the ball**." (CW 00615792 (Ex. 46).) **ON THE BALL** When measured **on the ball of Proudfit** Molitor '637's outer cover layer has a Shore D hardness of **59.4**. (MacKnight Decl. (Ex. 30) at ¶ 33.)

Claim 6	Proudfit and Molitor '637
The golf ball of claim 4	See above.
wherein said outer cover layer has a thickness of from about 0.01 to about 0.05 inches.	"The **thickness of the outer layer can be** within the range of about **0.0450 to 0.0650 inch** to provide a total ball diameter of 1.680 inch. The preferred dimensions are … an **outer layer thickness of 0.0525 inch**…." (Proudfit (Ex. 5), col. 7, lines 40-46.)

Claim 7	Proudfit and Molitor '637
The golf ball of claim 4	See above.
wherein said outer cover layer has a thickness of from about 0.03 to about 0.06 inches.	"The **thickness of the outer layer can be** within the range of about **0.0450 to 0.0650 inch** to provide a total ball diameter of 1.680 inch. The preferred dimensions are … an **outer layer thickness of 0.0525 inch**…." (Proudfit (Ex. 5), col. 7, lines 40-46.)

Claim 8	Proudfit and Molitor '637
A golf ball comprising:	"This **invention relates to golf balls**, and more particularly, to a golf ball having a two-layer cover." (Proudfit (Ex. 5), col. 1, lines 11-12.)
a core:	"FIG. 1 illustrates a two-piece golf ball 10 which includes a **solid core 11** and a cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins and a relatively soft outer layer 14 of polymeric material." (Proudfit (Ex. 5), col. 7, lines 21-24.) "Two specific **solid core compositions** used with the new

<table>
<tr><th>Claim 8</th><th>Proudfit and Molitor '637</th></tr>
<tr><td></td><td>two-layer cover had the composition described in Table 1. One core was used in a golf ball which was designated as a 90 compression ball, and the other core was used in a golf ball which was designated as a 100 compression ball." (Proudfit (Ex. 5), col. 7, lines 51-55.)</td></tr>
<tr><td>an inner cover layer disposed on said core,</td><td>"FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins and a relatively soft outer layer 14 of polymeric material." (Proudfit (Ex. 5), col. 7, lines 21-24.)</td></tr>
<tr><td>said inner cover layer having a Shore D hardness of about 60 or more,</td><td>"The composition of the inner cover layer is described in Table 6."
TABLE 6
Composition of Inner Layer of Cover (Parts by Weight)
Ionomer Type | Blend Ratio
Sodium- Surlyn 8940 | 75%
Zinc- Surlyn 9910 | 25%
(Proudfit (Ex. 5), col. 8, lines 22-30.)
Surlyn® 8940 has a Shore D hardness of 66; Surlyn® 9910 has a Shore D hardness of 64 (CW 00512231.) Therefore, this cover blend has a hardness of 60 or more when measured off the ball, specifically 64.7. (See "Blend 2" described in AC 0131414 (Ex. 34).)
"The inner layer can be molded in one of two methods:
1. Injection molded over the core in a manner which is conventionally used to injection mold ionomers over a solid core.
2. Injection mold halfshells, place halfshells over the core, compression mold the inner cover over the core." (Proudfit (Ex. 5), col. 8, lines 32-38.)</td></tr>
<tr><td>said inner cover layer comprising an ionomeric resin including no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid</td><td>"The composition of the inner cover layer is described in Table 6."
TABLE 6
Composition of Inner Layer of Cover (Parts by Weight)
Ionomer Type | Blend Ratio
Sodium- Surlyn 8940 | 75%
Zinc- Surlyn 9910 | 25%
(Proudfit (Ex. 5), col. 8, lines 22-30.) Surlyn® 8940 and Surlyn® 9910 are both low acid ionomer resins</td></tr>
</table>

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Claim 8	Proudfit and Molitor '637
	containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid. (*See* '293 patent (Ex. 1), col. 8, lines 20-27.)
and having a modulus of from about 15,000 to about 70,000 psi; and	"The **standard resins have a flexural modulus in the range of about 30,000 to about 55,000 psi** as measured by ATM Method D-790. (Standard resins are referred to as "hard Surlyns" in U.S. Patent No. 4,884,814.)" (Proudfit (Ex. 5), col. 5, line 66-col. 6, line 1.) "Specific **standard Surlyn resins** which can be used in the **inner layer include 8940 (sodium), 9910 (zinc)** …." (Proudfit (Ex. 5), col. 6, lines 6-7.) "The **composition of the inner cover layer** is described in Table 6." **TABLE 6** Composition of Inner Layer of Cover (Parts by Weight) Ionomer Type — Blend Ratio Sodium- Surlyn 8940 — 75% Zinc- Surlyn 9910 — 25% (Proudfit (Ex. 5), col. 8, lines 22-30.) Surlyn 8940 has a flexural modulus of **51,000 psi** (CW 00512231 (Ex. 45)), while Surlyn 9910 has a flexural modulus of **48,000 psi** (*Id.*)
an outer cover layer disposed about said inner cover layer,	"… an **outer layer of soft material** such as balata or a blend of balata and other elastomers." (Proudfit (Ex. 5), col. 5, lines 15-17.)
said outer cover layer having a thickness of from about 0.01 to about 0.07 inches,	"The **thickness of the outer layer can be** within the range of about **0.0450 to 0.0650 inch** to provide a total ball diameter of 1.680 inch. The preferred dimensions are … an **outer layer thickness of 0.0525 inch**…." (Proudfit (Ex. 5), col. 7, lines 40-46.)
and comprising a polyurethane material.	"… an **outer layer** of soft material such as balata or **a blend of balata and other elastomers**." (Proudfit (Ex. 5), col. 5, lines 15-17.) **Molitor '637**: Estane 58133 is a relatively soft polyurethane material. (Molitor '637 (Ex. 12), col. 18.)

Claim 9	Proudfit and Molitor '637
The golf ball of claim 8	See above.
wherein said outer cover exhibits a Shore D hardness of about 64 or less.	"… an **outer layer of soft material** such as balata or a blend of balata and other elastomers." (col. 5, lines 15-17.) This material inherently has a Shore D

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Claim 9	Proudfit and Molitor '637
	hardness of less than 64. "… an **outer layer of soft material** such as balata or a blend of balata and other elastomers." (col. 5, lines 15-17.) Balata has a Shore D hardness of less than 64. (*See* Decl. of Edmund A. Hebert (Ex. 25) at ¶ 7; Nesbitt Depo. Trans. (Ex. 16) at 121:2—121:5.). The Wilson Ultra Tour Balata Ball, which is made according to the Proudfit patent (*See* CW 0302942-47) has a Shore D hardness of less than 64 when measured on the ball. (*See* AC 0131413 (Ex. 34).) **Molitor '637**: Teaches the use of **Estane 58133** in Examples 16 and 17. (Molitor '637, col. 18.) Estane is a soft polyurethane material that has a **Shore D hardness of 55 as measured "off the ball**." (CW 00615792 (Ex. 46).) **ON THE BALL** When measured **on the ball of Proudfit** Molitor '637's outer cover layer has a Shore D hardness of **59.4**. (MacKnight Decl. (Ex. 30) at ¶ 33.)

Claim 10	Proudfit and Molitor '637
The golf ball of claim 8	See above.
wherein said outer cover layer has a thickness of from about 0.01 to about 0.05 inches.	"The **thickness of the outer layer can be** within the range of about **0.0450 to 0.0650 inch** to provide a total ball diameter of 1.680 inch. The preferred dimensions are … an **outer layer thickness of 0.0525 inch**…." (Proudfit (Ex. 5), col. 7, lines 40-46.)

Claim 11	Proudfit and Molitor '637
The golf ball of claim 8	See above.
wherein said outer cover layer has a thickness of from about 0.03 to about 0.06 inches.	"The **thickness of the outer layer can be** within the range of about **0.0450 to 0.0650 inch** to provide a total ball diameter of 1.680 inch. The preferred dimensions are … an **outer layer thickness of 0.0525 inch**…." (Proudfit (Ex. 5), col. 7, lines 40-46.)

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PROUDFIT AND WU

Claim 1	**Proudfit and Wu**
A golf ball comprising:	"This **invention relates to golf balls**, and more particularly, to a golf ball having a two-layer cover." (col. 1, lines 11-12.)
a core;	"FIG. 1 illustrates a two-piece golf ball 10 which includes a **solid core 11** and a cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins and a relatively soft outer layer 14 of polymeric material." (Proudfit (Ex. 5), col. 7, lines 21-24.) "Two specific **solid core compositions** used with the new two-layer cover had the composition described in Table 1. **One core** was used in a golf ball which was designated as a 90 compression ball, and **the other core** was used in a golf ball which was designated as a 100 compression ball." (Proudfit (Ex. 5), col. 7, lines 51-55.)
an inner cover layer disposed on said core,	"FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a **cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins** and a relatively soft outer layer 14 of polymeric material." (Proudfit (Ex. 5), col. 7, lines 21-24.)
said inner cover layer having a Shore D hardness of at least 60,	"The composition of the inner cover layer is described in Table 6." TABLE 6 Composition of Inner Layer of Cover (Parts by Weight) Ionomer Type — Blend Ratio Sodium- Surlyn 8940 — 75% Zinc- Surlyn 9910 — 25% (col. 8, lines 22-30.) Surlyn® 8940 has a Shore D hardness of 66; Surlyn® 9910 has a Shore D hardness of 64 (CW 00512231 (Ex. 45).) Therefore, this cover blend has a hardness of 60 or more when measured off the ball, specifically 64.7. (*See* "Blend 2" described in AC 0131414 Ex. 34).) "The inner layer can be molded in one of two methods: 1. Injection molded over the core in a manner which is conventionally used to injection mold ionomers over a solid core. 2. Injection mold halfshells, place halfshells over the core, compression mold the inner cover over the core." (Proudfit (Ex. 5), col. 8, lines 32-38.)
said inner cover layer	"The composition of the inner cover layer is described in Table

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Claim 1	Proudfit and Wu
comprising a blend of two or more low acid ionomer resins, each containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid; and	6." TABLE 6 Composition of Inner Layer of Cover (Parts by Weight) Ionomer Type — Blend Ratio Sodium- Surlyn 8940 — 75% Zinc- Surlyn 9910 — 25% (Proudfit (Ex. 5), col. 8, lines 22-30.) Surlyn® 8940 and Surlyn® 9910 are both low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid. (*See* '293 patent (Ex. 1), col. 8, lines 20-27.)
an outer cover layer disposed on said inner cover layer,	"FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a **cover 12 which comprises** a relatively hard inner layer 13 of one or more ionomer resins and **a relatively soft outer layer 14 of polymeric material.**" (Proudfit (Ex. 5), col. 7, lines 21-24.)
said outer cover layer having a Shore D hardness of about 64 or less,	"… an **outer layer of soft material** such as balata or a blend of balata and other elastomers." (col. 5, lines 15-17.) Balata has a Shore D hardness of less than 64. (*See* Decl. of Edmund A. Hebert (Ex. 25) at ¶ 7; Nesbitt Depo. Trans. (Ex. 16) at 121:2—121:5.). The Wilson Ultra Tour Balata Ball, which is made according to the Proudfit patent (*See* CW 0302942-47 (Ex. 47)) has a Shore D hardness of less than 64 when measured on the ball. (*See* AC 0131413 (Ex. 34).) "… an **outer layer of soft material** such as balata or a blend of balata and other elastomers." (Proudfit (Ex. 5), col. 5, lines 15-17.) Balata has a Shore D hardness of less than 64. (*See* Decl. of Edmund A. Hebert (Ex. 25) at ¶ 7; Nesbitt Depo. Trans. (Ex. 16) at 121:2—121:5.). **Wu** **ON THE BALL** Wu's polyurethane has a Shore D hardness of 56 .8 when measured on Proudfit's ball. (MacKnight Decl. (Ex. 30) at ¶ 33.) **OFF THE BALL** Off the ball measurements of polyurethanes are lower than on the ball measurements (Wu Depo. Trans. (Ex. 33) at 60:14—60:24.) This material had a Shore D hardness of **51.6** when measured "off the ball." (*See* AC0131414 (Ex. 34) showing measurements of MDI prepolymer.)

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Claim 1	**Proudfit and Wu**
a thickness of from about 0.01 to about 0.07 inches,	"The **thickness of the outer layer can be** within the range of about **0.0450 to 0.0650 inch** to provide a total ball diameter of 1.680 inch. The preferred dimensions are … an **outer layer thickness of 0.0525 inch**…." (Proudfit (Ex. 5), col. 7, lines 40-46.)
and comprising a polyurethane material.	"… an **outer layer** of soft material such as balata or **a blend of balata and other elastomers**." (Proudfit (Ex. 5), col. 5, lines 15-17.) **<u>Wu</u>** Wu discloses a golf ball cover formulation comprising a polyurethane. (Wu (Ex. 8), Table 1; col. 7, line 10—col. 8, ll. 35; claim 1.)

Claim 2	**Proudfit and Wu**
The golf ball of claim 1	See above.
wherein said outer cover layer has a thickness of from about 0.01 to about 0.05 inches.	"The **thickness of the outer layer can be** within the range of about **0.0450 to 0.0650 inch** to provide a total ball diameter of 1.680 inch. The preferred dimensions are … an **outer layer thickness of 0.0525 inch**…." (Proudfit (Ex. 5), col. 7, lines 40-46.)

Claim 3	**Proudfit and Wu**
The golf ball of claim 1	See above.
wherein said outer cover layer has a thickness of from about 0.03 to about 0.06 inches.	"The **thickness of the outer layer can be** within the range of about **0.0450 to 0.0650 inch** to provide a total ball diameter of 1.680 inch. The preferred dimensions are … an **outer layer thickness of 0.0525 inch**…." (Proudfit (Ex. 5), col. 7, lines 40-46.)

Claim 4	**Proudfit and Wu**
A golf ball comprising:	"This **invention relates to golf balls**, and more particularly, to a golf ball having a **two-layer cover**." (Proudfit (Ex. 5), col. 1, lines 11-12.)
a core:	"FIG. 1 illustrates a two-piece golf ball 10 which includes a **solid core 11** and a cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins and a relatively soft outer layer 14 of polymeric material." (Proudfit (Ex. 5), col. 7, lines 21-24; FIGS 1, 2.) "Two specific **solid core compositions** used with the new two-

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Claim 4	Proudfit and Wu
	layer cover had the composition described in Table 1. **One core** was used in a golf ball which was designated as a 90 compression ball, and **the other core** was used in a golf ball which was designated as a 100 compression ball." (Proudfit (Ex. 5), col. 7, lines 51-55.)
an inner cover layer disposed about said core,	"FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a **cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins** and a relatively soft outer layer 14 of polymeric material." (Proudfit (Ex. 5), col. 7, lines 21-24.)
said inner cover layer having a Shore D hardness of at least 60,	"The composition of the inner cover layer is described in Table 6." TABLE 6 Composition of Inner Layer of Cover (Parts by Weight) Ionomer Type — Blend Ratio Sodium- Surlyn 8940 — 75% Zinc- Surlyn 9910 — 25% (col. 8, lines 22-30.) Surlyn® 8940 has a Shore D hardness of 66; Surlyn® 9910 has a Shore D hardness of 64 (CW 00512231 (Ex. 45).) Therefore, this cover blend has a hardness of 60 or more when measured off the ball, specifically 64.7. (*See* "Blend 2" described in AC 0131414 (Ex. 34).) "The inner layer can be molded in one of two methods: 1. **Injection molded** over the core in a manner which is conventionally used to injection mold ionomers over a solid core. 2. Injection mold halfshells, place halfshells over the core, **compression mold the inner cover over the core**." (Proudfit (Ex. 5), col. 8, lines 32-38.)
said inner cover layer comprising a blend of two or more ionomeric resins, each containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid; and	"The composition of the inner cover layer is described in Table 6." TABLE 6 Composition of Inner Layer of Cover (Parts by Weight) Ionomer Type — Blend Ratio Sodium- Surlyn 8940 — 75% Zinc- Surlyn 9910 — 25% (Proudfit (Ex. 5), col. 8, lines 22-30.) Surlyn® 8940 and Surlyn® 9910 are both low acid ionomer resins containing no more than 16% by weight of an alpha, beta-

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Claim 4	**Proudfit and Wu**
	unsaturated carboxylic acid. (*See* '293 patent (Ex. 1), col. 8, lines 20-27.)
an outer cover layer disposed on said inner cover layer,	"… an **outer layer of soft material** such as balata or a blend of balata and other elastomers." (Proudfit (Ex. 5), col. 5, lines 15-17.) "FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a **cover 12 which comprises** a relatively hard inner layer 13 of one or more ionomer resins and **a relatively soft outer layer 14 of polymeric material.**" (Proudfit (Ex. 5), col. 7, lines 21-24.)
said outer cover layer having a thickness of from about 0.01 to about 0.07 inches,	"The **thickness of the outer layer can be** within the range of about **0.0450 to 0.0650 inch** to provide a total ball diameter of 1.680 inch. The preferred dimensions are … an **outer layer thickness of 0.0525 inch**…." (Proudfit (Ex. 5), col. 7, lines 40-46.)
and comprising a polyurethane material.	"… an **outer layer** of soft material such as **balata or a blend of balata and other elastomers**." (Proudfit (Ex. 5), col. 5, lines 15-17.) **Wu** Wu discloses a golf ball cover formulation comprising a polyurethane. (Wu (Ex. 8), Table 1; col. 7, line 10—col. 8, ll. 35; claim 1.)

Claim 5	**Proudfit and Wu**
The golf ball of claim 4	See above.
wherein said outer cover exhibits a Shore D hardness of about 64 or less.	"… an **outer layer of soft material** such as balata or a blend of balata and other elastomers." (Proudfit (Ex. 5), col. 5, lines 15-17.) Balata has a Shore D hardness of less than 64. (*See* Decl. of Edmund A. Hebert (Ex. 25) at ¶ 7; Nesbitt Depo. Trans. (Ex. 16) at 121:2—121:5.). The Wilson Ultra Tour Balata Ball, which is made according to the Proudfit patent (*See* CW 0302942-47 (Ex. 47)) has a Shore D hardness of less than 64 when measured on the ball. (*See* AC 0131413 (Ex. 34).) **Wu** **ON THE BALL** Wu's polyurethane has a Shore D hardness of 56.8 when measured on Proudfit's ball. (MacKnight Decl. (Ex. 30) at ¶ 33.)

Claim 5	**Proudfit and Wu**
	OFF THE BALL Off the ball measurements of polyurethanes are lower than on the ball measurements (Wu Depo. Trans. at 60:14—60:24.) This material had a Shore D hardness of **51.6** when measured "off the ball." (*See* AC0131414 (Ex. 34) showing measurements of MDI prepolymer.)

Claim 6	**Proudfit and Wu**
The golf ball of claim 4	See above.
wherein said outer cover layer has a thickness of from about 0.01 to about 0.05 inches.	"The **thickness of the outer layer can be** within the range of about **0.0450 to 0.0650 inch** to provide a total ball diameter of 1.680 inch. The preferred dimensions are … an **outer layer thickness of 0.0525 inch**…." (Proudfit (Ex. 5), col. 7, lines 40-46.)

Claim 7	**Proudfit and Wu**
The golf ball of claim 4	See above.
wherein said outer cover layer has a thickness of from about 0.03 to about 0.06 inches.	"The **thickness of the outer layer can be** within the range of about **0.0450 to 0.0650 inch** to provide a total ball diameter of 1.680 inch. The preferred dimensions are … an **outer layer thickness of 0.0525 inch**…." (Proudfit (Ex. 5), col. 7, lines 40-46.)

Claim 8	**Proudfit and Wu**
A golf ball comprising:	"This **invention relates to golf balls**, and more particularly, to a golf ball having a two-layer cover." (Proudfit (Ex. 5), col. 1, lines 11-12.)
a core:	"FIG. 1 illustrates a two-piece golf ball 10 which includes a **solid core 11** and a cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins and a relatively soft outer layer 14 of polymeric material." (Proudfit (Ex. 5), col. 7, lines 21-24.) "Two specific **solid core compositions** used with the new two-layer cover had the composition described in Table 1. **One core** was used in a golf ball which was designated as a 90 compression ball, and **the other core** was used in a golf ball which was designated as a 100 compression ball." (Proudfit (Ex. 5), col. 7, lines 51-55.)
an inner cover layer disposed on said core,	"FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a **cover 12 which comprises a**

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Claim 8	Proudfit and Wu
	relatively hard inner layer 13 of one or more ionomer resins and a relatively soft outer layer 14 of polymeric material." (Proudfit (Ex. 5), col. 7, lines 21-24.)
said inner cover layer having a Shore D hardness of about 60 or more,	"The composition of the inner cover layer is described in Table 6." **TABLE 6** Composition of Inner Layer of Cover (Parts by Weight) Ionomer Type — Blend Ratio Sodium- Surlyn 8940 — 75% Zinc- Surlyn 9910 — 25% (col. 8, lines 22-30.) Surlyn® 8940 has a Shore D hardness of 66; Surlyn® 9910 has a Shore D hardness of 64 (CW 00512231 (Ex. 45).) Therefore, this cover blend has a hardness of 60 or more when measured off the ball, specifically 64.7. (*See* "Blend 2" described in AC 0131414 (Ex. 34).) "The inner layer can be molded in one of two methods: 1. Injection molded over the core in a manner which is conventionally used to injection mold ionomers over a solid core. 2. Injection mold halfshells, place halfshells over the core, compression mold the inner cover over the core." (Proudfit (Ex. 5), col. 8, lines 32-38.)
said inner cover layer comprising an ionomeric resin including no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid	"The composition of the inner cover layer is described in Table 6." **TABLE 6** Composition of Inner Layer of Cover (Parts by Weight) Ionomer Type — Blend Ratio Sodium- Surlyn 8940 — 75% Zinc- Surlyn 9910 — 25% (Proudfit (Ex. 5), col. 8, lines 22-30.) Surlyn® 8940 and Surlyn® 9910 are both low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid. (*See* '293 patent (Ex. 1), col. 8, lines 20-27.)
and having a modulus of from about 15,000 to about 70,000 psi; and	"The **standard resins have a flexural modulus in the range of about 30,000 to about 55,000 psi** as measured by ATM Method D-790. (Standard resins are referred to as "hard Surlyns" in U.S. Patent No. 4,884,814.)" (Proudfit (Ex. 5), col. 5, line 66-col. 6, line 1.)

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Claim 8	Proudfit and Wu
	"Specific **standard Surlyn resins** which can be used in the **inner layer include 8940 (sodium), 9910 (zinc)** …." (Proudfit (Ex. 5), col. 6, lines 6-7.) "The **composition of the inner cover layer** is described in Table 6." **TABLE 6** Composition of Inner Layer of Cover (Parts by Weight) Ionomer Type / Blend Ratio Sodium- Surlyn 8940 — 75% Zinc- Surlyn 9910 — 25% (Proudfit (Ex. 5), col. 8, lines 22-30.) Surlyn 8940 has a flexural modulus of **51,000 psi** (CW 00512231 (Ex. 45)), while Surlyn 9910 has a flexural modulus of **48,000 psi** (*Id.*)
an outer cover layer disposed about said inner cover layer,	"… an **outer layer of soft material** such as balata or a blend of balata and other elastomers." (Proudfit (Ex. 5), col. 5, lines 15-17.)
said outer cover layer having a thickness of from about 0.01 to about 0.07 inches,	"The **thickness of the outer layer can be** within the range of about **0.0450 to 0.0650 inch** to provide a total ball diameter of 1.680 inch. The preferred dimensions are … an **outer layer thickness of 0.0525 inch**…." (Proudfit (Ex. 5), col. 7, lines 40-46.)
and comprising a polyurethane material.	"… an **outer layer** of soft material such as balata or **a blend of balata and other elastomers**." (Proudfit (Ex. 5), col. 5, lines 15-17.) **Wu** Wu discloses a golf ball cover formulation comprising a polyurethane. (Wu (Ex. 12), Table 1; col. 7, line 10—col. 8, ll. 35; claim 1.)

Claim 9	Proudfit and Wu
The golf ball of claim 8	See above.
wherein said outer cover exhibits a Shore D hardness of about 64 or less.	"… an **outer layer of soft material** such as balata or a blend of balata and other elastomers." (Proudfit (Ex. 5), col. 5, lines 15-17.) This material inherently has a Shore D hardness of less than 64. "… an **outer layer of soft material** such as balata or a blend of balata and other elastomers." (col. 5, lines 15-17.) Balata has a Shore D hardness of less than 64. (*See* Decl. of Edmund A. Hebert (Ex. 25) at ¶ 7;

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Claim 9	Proudfit and Wu
	Nesbitt Depo. Trans. (Ex. 16) at 121:2—121:5.). The Wilson Ultra Tour Balata Ball, which is made according to the Proudfit patent (*See* CW 0302942-47 (Ex. 47) has a Shore D hardness of less than 64 when measured on the ball. (*See* AC 0131413 (Ex. 34).) **Wu** **ON THE BALL** Wu's polyurethane has a Shore D hardness of 56.8 when measured on Proudfit's ball. (MacKnight Decl. (Ex. 30) at ¶ 33.) **OFF THE BALL** Off the ball measurements of polyurethanes are lower than on the ball measurements (Wu Depo. Trans. (Ex. 33) at 60:14—60:24.) This material had a Shore D hardness of **51.6** when measured "off the ball." (*See* AC0131414 (Ex. 34) showing measurements of MDI prepolymer.)

Claim 10	Proudfit and Wu
The golf ball of claim 8	See above.
wherein said outer cover layer has a thickness of from about 0.01 to about 0.05 inches.	"The **thickness of the outer layer can be** within the range of about **0.0450 to 0.0650 inch** to provide a total ball diameter of 1.680 inch. The preferred dimensions are … an **outer layer thickness of 0.0525 inch**…." (Proudfit (Ex. 5), col. 7, lines 40-46.)

Claim 11	Proudfit and Wu
The golf ball of claim 8	See above.
wherein said outer cover layer has a thickness of from about 0.03 to about 0.06 inches.	"The **thickness of the outer layer can be** within the range of about **0.0450 to 0.0650 inch** to provide a total ball diameter of 1.680 inch. The preferred dimensions are … an **outer layer thickness of 0.0525 inch**…." (Proudfit (Ex. 5), col. 7, lines 40-46.)

PROUDFIT AND MOLITOR '751

Claim 1	**Proudfit and Molitor '751**
A golf ball comprising:	"This **invention relates to golf balls**, and more particularly, to a golf ball having a two-layer cover." (col. 1, lines 11-12.)
a core;	"FIG. 1 illustrates a two-piece golf ball 10 which includes a **solid core 11** and a cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins and a relatively soft outer layer 14 of polymeric material." (Proudfit (Ex. 5), col. 7, lines 21-24.) "Two specific **solid core compositions** used with the new two-layer cover had the composition described in Table 1. **One core** was used in a golf ball which was designated as a 90 compression ball, and **the other core** was used in a golf ball which was designated as a 100 compression ball." (Proudfit (Ex. 5), col. 7, lines 51-55.)
an inner cover layer disposed on said core,	"FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a **cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins** and a relatively soft outer layer 14 of polymeric material." (Proudfit (Ex. 5), col. 7, lines 21-24.)
said inner cover layer having a Shore D hardness of at least 60,	"The composition of the inner cover layer is described in Table 6." TABLE 6 Composition of Inner Layer of Cover (Parts by Weight) Ionomer Type — Blend Ratio Sodium- Surlyn 8940 — 75% Zinc- Surlyn 9910 — 25% (col. 8, lines 22-30.) Surlyn® 8940 has a Shore D hardness of 66; Surlyn® 9910 has a Shore D hardness of 64 (CW 00512231 (Ex. 45).) Therefore, this cover blend has a hardness of 60 or more when measured off the ball, specifically 64.7. (*See* "Blend 2" described in AC 0131414 (Ex. 34).) "The inner layer can be molded in one of two methods: 1. Injection molded over the core in a manner which is conventionally used to injection mold ionomers over a solid core. 2. Injection mold halfshells, place halfshells over the core, compression mold the inner cover over the core." (Proudfit (Ex.

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<table>
<tr><th>Claim 1</th><th>Proudfit and Molitor ‘751</th></tr>
<tr><td></td><td>5), col. 8, lines 32-38.)</td></tr>
<tr><td>said inner cover layer comprising a blend of two or more low acid ionomer resins, each containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid; and</td><td>“The composition of the inner cover layer is described in Table 6.”

TABLE 6
Composition of Inner Layer of Cover
(Parts by Weight)
<table><tr><th>Ionomer Type</th><th>Blend Ratio</th></tr><tr><td>Sodium- Surlyn 8940</td><td>75%</td></tr><tr><td>Zinc- Surlyn 9910</td><td>25%</td></tr></table>
(col. 8, lines 22-30.) Surlyn® 8940 and Surlyn® 9910 are both low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid. (See ’293 patent (Ex. 1), col. 8, lines 20-27.)</td></tr>
<tr><td>an outer cover layer disposed on said inner cover layer,</td><td>“FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins and a relatively soft outer layer 14 of polymeric material.” (Proudfit (Ex. 5), col. 7, lines 21-24.)</td></tr>
<tr><td>said outer cover layer having a Shore D hardness of about 64 or less,</td><td>“… an outer layer of soft material such as balata or a blend of balata and other elastomers.” (Proudfit (Ex. 5), col. 5, lines 15-17.) Balata has a Shore D hardness of less than 64. (See Decl. of Edmund A. Hebert (Ex. 25) at ¶ 7; Nesbitt Depo. Trans. (Ex. 16) at 121:2—121:5.).

The Wilson Ultra Tour Balata Ball, which is made according to the Proudfit patent (See CW 0302942-47 (Ex. 47)) has a Shore D hardness of less than 64 when measured on the ball. (See AC 0131413 (Ex. 34).)
<u>Molitor ‘751:</u>
<u>ON THE BALL</u>
Molitor ‘751 discloses the following blend as the most preferred (Ex. 13, col. 7, line 25, Table):

<table><tr><th>Material</th><th>Parts</th></tr><tr><td>Texin 480 AR (now 285)</td><td>90</td></tr><tr><td>Surlyn 1605 (now 8940)</td><td>10</td></tr><tr><td>TiO2</td><td>5</td></tr><tr><td>Fluorescent Brightener</td><td>0.10</td></tr></table></td></tr>
</table>

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<table>
<tr><th>Claim 1</th><th>Proudfit and Molitor ‘751</th></tr>
<tr><td></td><td>
<table>
<tr><td>Antioxidant</td><td>0.17</td></tr>
<tr><td>Pigment</td><td>0.02</td></tr>
<tr><td>Release Agent</td><td>1</td></tr>
</table>
When measured on Proudfit’s ball, this cover has a Shore D hardness of hardness of 49.6. (MacKnight Decl. (Ex. 30 at ¶ 33).

<u>OFF THE BALL</u>
When measured off the ball, this formulation had a Shore D hardness of 39.5 (See “Texin Blend” average Shore D hardness at AC 0131414 (Ex. 34).)</td></tr>
<tr><td>a thickness of from about 0.01 to about 0.07 inches,</td><td>“The thickness of the outer layer can be within the range of about 0.0450 to 0.0650 inch to provide a total ball diameter of 1.680 inch. The preferred dimensions are … an outer layer thickness of 0.0525 inch….” (Proudfit (Ex. 5), col. 7, lines 40-46.)</td></tr>
<tr><td>and comprising a polyurethane material.</td><td>“… an outer layer of soft material such as balata or a blend of balata and other elastomers.” (Proudfit (Ex. 5), col. 5, lines 15-17.)

<u>Molitor ‘751:</u>
“The preferred components of the cover material comprise a thermoplastic polyurethane . . . .” (Molitor ‘751 (Ex. 13), col. 3, lines 6-7.)</td></tr>
</table>

Claim 2	Proudfit and Molitor ‘751
The golf ball of claim 1	See above.
wherein said outer cover layer has a thickness of from about 0.01 to about 0.05 inches.	“The **thickness of the outer layer can be** within the range of about **0.0450 to 0.0650 inch** to provide a total ball diameter of 1.680 inch. The preferred dimensions are … an **outer layer thickness of 0.0525 inch**….” (Proudfit (Ex. 5), col. 7, lines 40-46.)

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Claim 3	**Proudfit and Molitor '751**
The golf ball of claim 1	See above.
wherein said outer cover layer has a thickness of from about 0.03 to about 0.06 inches.	"The **thickness of the outer layer can be** within the range of about **0.0450 to 0.0650 inch** to provide a total ball diameter of 1.680 inch. The preferred dimensions are … an **outer layer thickness of 0.0525 inch**…." (Proudfit (Ex. 5), col. 7, lines 40-46.)

Claim 4	**Proudfit and Molitor '751**
A golf ball comprising:	"This **invention relates to golf balls**, and more particularly, to a golf ball having a **two-layer cover**." (Proudfit (Ex. 5), col. 1, lines 11-12.)
a core:	"FIG. 1 illustrates a two-piece golf ball 10 which includes a **solid core 11** and a cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins and a relatively soft outer layer 14 of polymeric material." (Proudfit (Ex. 5), col. 7, lines 21-24; FIGS 1, 2.) "Two specific **solid core compositions** used with the new two-layer cover had the composition described in Table 1. **One core** was used in a golf ball which was designated as a 90 compression ball, and **the other core** was used in a golf ball which was designated as a 100 compression ball." (Proudfit (Ex. 5), col. 7, lines 51-55.)
an inner cover layer disposed about said core,	"FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a **cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins** and a relatively soft outer layer 14 of polymeric material." (Proudfit (Ex. 5), col. 7, lines 21-24.)
said inner cover layer having a Shore D hardness of at least 60,	"The composition of the inner cover layer is described in Table 6." TABLE 6 Composition of Inner Layer of Cover (Parts by Weight) Ionomer Type — Blend Ratio Sodium- Surlyn 8940 — 75% Zinc- Surlyn 9910 — 25% (Proudfit (Ex. 5), col. 8, lines 22-30.) Surlyn® 8940 has a Shore D hardness of 66; Surlyn® 9910 has a Shore D hardness of 64 (CW 00512231 (Ex. 45).) Therefore, this cover blend has a hardness of 60 or more when measured off the ball, specifically 64.7. (*See* "Blend 2" described in AC 0131414 (Ex. 34).)

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Claim 4	**Proudfit and Molitor '751**
	"The inner layer can be molded in one of two methods: 1. **Injection molded** over the core in a manner which is conventionally used to injection mold ionomers over a solid core. 2. Injection mold halfshells, place halfshells over the core, **compression mold the inner cover over the core**." (Proudfit (Ex. 5), col. 8, lines 32-38.)
said inner cover layer comprising a blend of two or more ionomeric resins, each containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid; and	"The composition of the inner cover layer is described in Table 6." TABLE 6 Composition of Inner Layer of Cover (Parts by Weight) Ionomer Type — Blend Ratio Sodium- Surlyn 8940 — 75% Zinc- Surlyn 9910 — 25% (Proudfit (Ex. 5), col. 8, lines 22-30.) Surlyn® 8940 and Surlyn® 9910 are both low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid. (*See* '293 patent (Ex. 1), col. 8, lines 20-27.)
an outer cover layer disposed on said inner cover layer,	"… an **outer layer of soft material** such as balata or a blend of balata and other elastomers." (Proudfit (Ex. 5), col. 5, lines 15-17.) "FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a **cover 12 which comprises** a relatively hard inner layer 13 of one or more ionomer resins and **a relatively soft outer layer 14 of polymeric material.**" (Proudfit (Ex. 5), col. 7, lines 21-24.)
said outer cover layer having a thickness of from about 0.01 to about 0.07 inches,	"The **thickness of the outer layer can be** within the range of about **0.0450 to 0.0650 inch** to provide a total ball diameter of 1.680 inch. The preferred dimensions are … an **outer layer thickness of 0.0525 inch**…." (Proudfit (Ex. 5), col. 7, lines 40-46.)
and comprising a polyurethane material.	"… an **outer layer** of soft material such as **balata or a blend of balata and other elastomers**." (Proudfit (Ex. 5), col. 5, lines 15-17.) **Molitor '751:** "The preferred components of the cover material comprise a thermoplastic polyurethane . . . ." (Molitor '751 (Ex. 13), col. 3, lines 6-7.)

Invalidity Charts for U.S. Patent No. 6,503,156

<table>
<tr><th>Claim 5</th><th>Proudfit and Molitor ‘751</th></tr>
<tr><td>The golf ball of claim 4</td><td>See above.</td></tr>
<tr><td>wherein said outer cover exhibits a Shore D hardness of about 64 or less.</td><td><u>Molitor ‘751:</u>
<u>ON THE BALL</u>
Molitor ‘751 discloses the following blend as the most preferred (Ex. 13, col. 7, line 25, Table):
<table>
<tr><th>Material</th><th>Parts</th></tr>
<tr><td>Texin 480 AR (now 285)</td><td>90</td></tr>
<tr><td>Surlyn 1605 (now 8940)</td><td>10</td></tr>
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<tr><td>Fluorescent Brightener</td><td>0.10</td></tr>
<tr><td>Antioxidant</td><td>0.17</td></tr>
<tr><td>Pigment</td><td>0.02</td></tr>
<tr><td>Release Agent</td><td>1</td></tr>
</table>
When measured on Proudfit’s ball, this cover has a Shore D hardness of hardness of 49.6. (MacKnight Decl. (Ex. 30) at ¶ 33).
<u>OFF THE BALL</u>
When measured off the ball, this formulation had a Shore D hardness of 39.5 (See “Texin Blend” average Shore D hardness at AC 0131414 (Ex. 34).)</td></tr>
</table>

Claim 6	Proudfit and Molitor ‘751
The golf ball of claim 4	See above.
wherein said outer cover layer has a thickness of from about 0.01 to about 0.05 inches.	“The **thickness of the outer layer can be** within the range of about **0.0450 to 0.0650 inch** to provide a total ball diameter of 1.680 inch. The preferred dimensions are … an **outer layer thickness of 0.0525 inch**….” (Proudfit (Ex. 5), col. 7, lines 40-46.)

Claim 7	Proudfit and Molitor ‘751
The golf ball of claim 4	See above.
wherein said outer cover layer has a thickness of from about 0.03 to about 0.06 inches.	“The **thickness of the outer layer can be** within the range of about **0.0450 to 0.0650 inch** to provide a total ball diameter of 1.680 inch. The preferred dimensions

Claim 7	**Proudfit and Molitor '751**
	are … an **outer layer thickness of 0.0525 inch**…." (Proudfit (Ex. 5), col. 7, lines 40-46.)

Claim 8	**Proudfit and Molitor '751**
A golf ball comprising:	"This **invention relates to golf balls**, and more particularly, to a golf ball having a two-layer cover." (Proudfit (Ex. 5), col. 1, lines 11-12.)
a core:	"FIG. 1 illustrates a two-piece golf ball 10 which includes a **solid core 11** and a cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins and a relatively soft outer layer 14 of polymeric material." (Proudfit (Ex. 5), col. 7, lines 21-24.) "Two specific **solid core compositions** used with the new two-layer cover had the composition described in Table 1. **One core** was used in a golf ball which was designated as a 90 compression ball, and **the other core** was used in a golf ball which was designated as a 100 compression ball." (Proudfit (Ex. 5), col. 7, lines 51-55.)
an inner cover layer disposed on said core,	"FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a **cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins** and a relatively soft outer layer 14 of polymeric material." (Proudfit (Ex. 5), col. 7, lines 21-24.)
said inner cover layer having a Shore D hardness of about 60 or more,	"The composition of the inner cover layer is described in Table 6." TABLE 6 Composition of Inner Layer of Cover (Parts by Weight) Ionomer Type / Blend Ratio Sodium- Surlyn 8940 — 75% Zinc- Surlyn 9910 — 25% (Proudfit (Ex. 5), col. 8, lines 22-30.) Surlyn® 8940 has a Shore D hardness of 66; Surlyn® 9910 has a Shore D hardness of 64 (CW 00512231 (Ex. 45).) Therefore, this cover blend has a hardness of 60 or more when measured off the ball, specifically 64.7. (*See* "Blend 2" described in AC 0131414 (Ex. 34).) "The inner layer can be molded in one of two methods: 1. Injection molded over the core in a manner which is conventionally used to injection mold ionomers over a solid core. 2. Injection mold halfshells, place halfshells over the

Claim 8	Proudfit and Molitor '751
	core, compression mold the inner cover over the core." (Proudfit (Ex. 5), col. 8, lines 32-38.)
said inner cover layer comprising an ionomeric resin including no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid	"The composition of the inner cover layer is described in Table 6." **TABLE 6** Composition of Inner Layer of Cover (Parts by Weight) Ionomer Type — Blend Ratio Sodium- Surlyn 8940 — 75% Zinc- Surlyn 9910 — 25% (Proudfit (Ex. 5), col. 8, lines 22-30.) Surlyn® 8940 and Surlyn® 9910 are both low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid. (*See* '293 patent (Ex. 1), col. 8, lines 20-27.)
and having a modulus of from about 15,000 to about 70,000 psi; and	"The **standard resins have a flexural modulus in the range of about 30,000 to about 55,000 psi** as measured by ATM Method D-790. (Standard resins are referred to as "hard Surlyns" in U.S. Patent No. 4,884,814.)" (Proudfit (Ex. 5), col. 5, line 66-col. 6, line 1.) "Specific **standard Surlyn resins** which can be used in the **inner layer include 8940 (sodium), 9910 (zinc)** …." (Proudfit (Ex. 5), col. 6, lines 6-7.) "The **composition of the inner cover layer** is described in Table 6." **TABLE 6** Composition of Inner Layer of Cover (Parts by Weight) Ionomer Type — Blend Ratio Sodium- Surlyn 8940 — 75% Zinc- Surlyn 9910 — 25% (Proudfit (Ex. 5), col. 8, lines 22-30.) Surlyn 8940 has a flexural modulus of **51,000 psi** (CW 00512231 (Ex. 45)), while Surlyn 9910 has a flexural modulus of **48,000 psi** (*Id.*)
an outer cover layer disposed about said inner cover layer,	"… an **outer layer of soft material** such as balata or a blend of balata and other elastomers." (Proudfit (Ex. 5), col. 5, lines 15-17.)
said outer cover layer having a thickness of from about 0.01 to about 0.07 inches,	"The **thickness of the outer layer can be** within the range of about **0.0450 to 0.0650 inch** to provide a total ball diameter of 1.680 inch. The preferred dimensions are … an **outer layer thickness of 0.0525 inch**…." (Proudfit

Claim 8	**Proudfit and Molitor '751**
	(Ex. 5), col. 7, lines 40-46.)
and comprising a polyurethane material.	"… an **outer layer** of soft material such as balata or **a blend of balata and other elastomers**." (Proudfit (Ex. 5), col. 5, lines 15-17.) **Molitor '751:** "The preferred components of the cover material comprise a thermoplastic polyurethane . . . ." (Molitor '751 (Ex. 13), col. 3, lines 6-7.)

Claim 9	**Proudfit and Molitor '751**
The golf ball of claim 8	See above.
wherein said outer cover exhibits a Shore D hardness of about 64 or less.	"… an **outer layer of soft material** such as balata or a blend of balata and other elastomers." (Proudfit (Ex. 5), col. 5, lines 15-17.) Balata has a Shore D hardness of less than 64. (*See* Decl. of Edmund A. Hebert (Ex. 25) at ¶ 7; Nesbitt Depo. Trans. (Ex. 16) at 121:2—121:5.). The Wilson Ultra Tour Balata Ball, which is made according to the Proudfit patent (*See* CW 0302942-47 (Ex. 47)) has a Shore D hardness of less than 64 when measured on the ball. (*See* AC 0131413 (Ex. 45).) **Molitor '751:** **ON THE BALL** Molitor '751 discloses the following blend as the most preferred (Ex. 13, col. 7, line 25, Table):

Material	**Parts**
Texin 480 AR (now 285)	90
Surlyn 1605 (now 8940)	10
TiO2	5
Fluorescent Brightener	0.10
Antioxidant	0.17

Claim 9	**Proudfit and Molitor '751**
	<table><tr><td>Release Agent</td><td>1</td></tr></table> When measured on Proudfit's ball, this cover has a Shore D hardness of hardness of **49.6**. (MacKnight Decl. (Ex. 30) at ¶ 33). **OFF THE BALL** When measured off the ball, this formulation had a Shore D hardness of **39.5** (*See* "Texin Blend" average Shore D hardness at AC 0131414 (Ex. 34).)

Claim 10	**Proudfit and Molitor '751**
The golf ball of claim 8	See above.
wherein said outer cover layer has a thickness of from about 0.01 to about 0.05 inches.	"The **thickness of the outer layer can be** within the range of about **0.0450 to 0.0650 inch** to provide a total ball diameter of 1.680 inch. The preferred dimensions are … an **outer layer thickness of 0.0525 inch**…." (Proudfit (Ex. 5), col. 7, lines 40-46.)

Claim 11	**Proudfit and Molitor '751**
The golf ball of claim 8	See above.
wherein said outer cover layer has a thickness of from about 0.03 to about 0.06 inches.	"The **thickness of the outer layer can be** within the range of about **0.0450 to 0.0650 inch** to provide a total ball diameter of 1.680 inch. The preferred dimensions are … an **outer layer thickness of 0.0525 inch**…." (Proudfit (Ex. 5), col. 7, lines 40-46.)

EXHIBIT D

Invalidity Charts for U.S. Patent No. 6,595,873

NESBITT INCORPORATING MOLITOR '637
(OR ALTERNATIVELY IN COMBINATION WITH MOLITOR '637)

Claim 1	**Nesbitt and Molitor '637**
A golf ball comprising:	"The disclosure embraces **a golf ball** and method of making same …." (Nesbitt (Ex. 10), Abstract; FIGS 1 & 2.)
a core;	"Referring to the drawings in detail there is illustrated a golf ball 10 which comprises a **solid center or core** formed as a solid body of resilient polymeric material or rubber-like material in the shape of a sphere." (Nesbitt (Ex. 10), col. 2, lines 31-34.)
an inner cover layer disposed on said core,	"Disposed on the spherical center or core 12 is a first layer, lamination, ply or **inner cover 14** of molded hard, highly flexural modulus resinous material…." (Nesbitt (Ex. 10), col. 2, lines 34-37.)
said inner cover layer having a thickness of from about 0.100 to about 0.010 inches,	"It is found that the inner layer of hard, high flexural modulus resinous material such as Surlyn® resin type 1605, is preferably of a thickness in a range of 0.020 inches and 0.070 inches." ((Ex. 10),col. 3, lines 19-23.)
said inner cover layer comprising a blend of two or more ionomer resins, at least one of which contains no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid; and	**Nesbitt Incorporates the Materials of Molitor '637 by Reference**: "Reference is made to the application Ser. No. 155,658 of **Robert P. Molitor issued into U.S. Pat. No. 4,274,637** which describes a number of foamable compositions of a character which may be employed for … layers 14 … for the golf ball of this invention." (Nesbitt (Ex. 10), col. 3, lines 54-60.) **Molitor '637**: Molitor teaches, in examples 1-7, cover materials including a blend of two ionomer resins: Surlyn 1605 and Surlyn 1557. (Molitor '637 (Ex. 12), col. 14, line 22 to col. 16, line 34.) Type 1605 Surlyn® is now designated Surlyn® 8940. ('293 patent (Ex. 1), col. 2, lines 54-55.) It has about 15% acid. ('293 patent (Ex. 1), col. 2, lines 55-57.) Type 1557 Surlyn is now designated Surlyn 9650. (DUP 000038 (Ex. 36).) It has an acid content of about 11%. (DUP 000132 (Ex. 36).) Callaway admits that Nesbitt teaches the use of the ionomer blend found in Molitor '637 in a multi-layer golf ball. (*See* Response to Office Action Mailed February 27, 2007 in Reexam. Cont. No. 95/000,120 (Ex. 28) at 16.)
an outer cover layer disposed on said inner cover layer,	"An **outer layer, ply, lamination or cover 16** … is then

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Claim 1	**Nesbitt and Molitor '637**
	remolded onto the inner ply or layer 14…." (Nesbitt (Ex. 10), col. 2, lines 43-47.)
said outer cover layer having a thickness of 0.010 to 0.070 inches,	"The **thickness of the outer layer or cover 16** of soft, low flexural modulus resin such as Surlyn type 1855, **may be in the range of 0.020 inches and 0.100 inches**." (Nesbitt (Ex. 10), col. 3, lines 22-25.) "The outer layer of the soft resin is of a thickness of **0.0575** inches." (Nesbitt (Ex. 10), col. 3, lines 39-40.)
and said outer cover layer comprising a polyurethane material,	**Nesbitt Incorporates the Materials of Molitor '637 by Reference**: "Reference is made to the application Ser. No. 155,658 of **Robert P. Molitor issued into U.S. Pat. No. 4,274,637** which describes a number of foamable compositions of a character which may be employed for … layers … 16 for the golf ball of this invention." (Nesbitt (Ex. 10), col. 3, lines 54-60.) **Molitor '637**: Teaches the use of **Estane 58133** in Examples 16 and 17. (Molitor '637 (Ex. 12), col. 18.) Estane is a soft polyurethane material that has a **Shore D hardness of 55 as measured "off the ball**." (CW 00615792 (Ex. 46).)
wherein said golf ball has an overall diameter of 1.680 inches or more,	"According to the United States Golf Association Rules, the **minimum diameter prescribed for a golf ball is 1.680 inches**…." (Nesbitt (Ex. 10), col. 2, lines 50-52.) "This center or core 12 and inner layer 14 of hard resinous material in the form of a sphere is then remolded into a dimpled **golf ball of a diameter of 1.680 inches minimum** with an outer or cover layer 16 of a soft, low flexural modulus resin…." (Nesbitt (Ex. 10), col. 3, lines 34-38.)
said inner cover layer having a Shore D hardness of at least 60,	**Nesbitt**: "[I]nner cover 14 of molded **hard**, high flexural modulus resinous material such as **type 1605 Surlyn® marketed by E.I DuPont de Nemours**." (Nesbitt, col. 2, lines 36-38.) **Per the '293 Patent**: "Type 1605 Surlyn® (now designated Surlyn® 8940)." ('293 patent, col. 2, lines 54-55.) **OFF THE BALL** **DuPont Surlyn Product Information:** Surlyn® 8940 (formerly 1605 (*see* '293 patent, col. 2, lines 54-55)) has a Shore D hardness of 66. Surlyn® 8940 (*See* '293 patent (Ex. 1), Table 1.)

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Claim 1	**Nesbitt and Molitor '637**
	ON THE BALL Measurements of Surlyns made "on the ball" are higher than plaque measurements and would also be above 60. (*See* Nesbitt Depo. Trans. (Ex. 16) at 244:12—244:17.) **Nesbitt Incorporates the Materials of Molitor '637 by Reference**: Molitor '637 discloses a blend of two ionomers. (Molitor '637 (Ex. 12), (Table1).) Measurements of Surlyns made "on the ball" are higher than plaque measurements and would also be above 60. (Nesbitt Depo. Trans. (Ex. 16) at 244:12—244:17.) Molitor '637 discloses a blend of two ionomers which has a Shore D hardness of 64.3 when measured "off the ball." (*See* "Blend 3" AC 0131414 (Ex. 34).)
and said outer cover layer having a Shore D hardness of less than 64.	**OFF THE BALL** **Nesbitt:** Nesbitt teaches an outer cover layer made of Surlyn® 1855, now Surlyn® 9020 ('293 patent, col. 2, lines (63-65.) It has a **Shore D hardness of 55** . (*See* CW 00512231 (Ex. 45).) **Nesbitt Incorporates the Materials of Molitor '637 by Reference**: "Reference is made to the application Ser. No. 155,658 of **Robert P. Molitor issued into U.S. Pat. No. 4,274,637** which describes a number of foamable compositions of a character which may be employed for … layers … 16 for the golf ball of this invention." (Nesbitt (Ex. 10), col. 3, lines 54-60.) **Molitor '637**: Teaches the use of **Estane 58133** in Examples 16 and 17. (Molitor '637, col. 18.) Estane is a soft polyurethane material that has a **Shore D hardness of 55 as measured "off the ball**." (CW 00615792 (Ex. 46).) **ON THE BALL** When measured **on the ball of Nesbitt** Molitor '637's outer cover layer has a Shore D hardness of 61.0. (MacKnight Decl. (Ex. 30) at ¶ 33.)

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Claim 3	**Nesbitt and Molitor '637**
A multi-layer golf ball comprising:	"The disclosure embraces **a golf ball** and method of making same …." (Nesbitt (Ex. 10), Abstract; FIGS 1 & 2.)
a spherical core;	"Referring to the drawings in detail there is illustrated a golf ball 10 which comprises a **solid center or core** formed as a solid body of resilient polymeric material or rubber-like material in the shape of a sphere." (Nesbitt (Ex. 10), col. 2, lines 31-34.)
an inner cover layer having Shore D hardness of at least 60 disposed on said spherical core,	**Nesbitt**: "[I]nner cover 14 of molded **hard**, high flexural modulus resinous material such as **type 1605 Surlyn® marketed by E.I DuPont de Nemours**." (Nesbitt (Ex. 10), col. 2, lines 36-38.) **Per the '293 Patent**: "Type 1605 Surlyn® (now designated Surlyn® 8940)." ('293 patent (Ex. 1), col. 2, lines 54-55.) **OFF THE BALL** **DuPont Surlyn® Product Information**: Surlyn® 8940 (formerly Surlyn® 1605) has a Shore D hardness of 66. ('293 patent (Ex. 1), Table 1.) **Nesbitt Incorporates the Materials of Molitor '637 by Reference**: Molitor '637 discloses a blend of two ionomers which has a Shore D hardness of 64.3 when measured "off the ball." (*See* "Blend 3" AC 0131414 (Ex. 34).) **ON THE BALL** Measurements of Surlyns made "on the ball" are higher than plaque measurements and would also be above 60. (*See* Nesbitt Depo. Trans. (Ex. 16) at 244:12—244:17.) **Nesbitt Incorporates the Materials of Molitor '637 by Reference**: Molitor '637 discloses a blend of two ionomers. (Molitor '637 (Ex. 12), Table 1). Measurements of Surlyns made "on the ball" are higher than plaque measurements and would also be above 60. Nesbitt Depo. Trans. at 244:12—244:17.
said inner cover layer comprising an ionomeric resin including no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid	**Nesbitt Incorporates the Materials of Molitor '637 by Reference**: "Reference is made to the application Ser. No. 155,658 of **Robert P. Molitor issued into U.S. Pat. No. 4,274,637** which describes a number of foamable compositions of a character which may be employed for … layers 14 … for the golf ball of

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Claim 3	Nesbitt and Molitor '637
	this invention." (Nesbitt, col. 3, lines 54-60.) **Molitor '637**: Molitor teaches, in examples 1-7, cover materials including a blend of two ionomer resins: Surlyn 1605 and Surlyn 1557. (Molitor '637, col. 14, line 22 to col. 16, line 34.) Type 1605 Surlyn® is now designated Surlyn® 8940. ('293 patent (Ex. 1), col. 2, lines 54-55.) It has about 15% acid. ('293 patent (Ex. 1), col. 2, lines 55-57.) Type 1557 Surlyn is now designated Surlyn 9650. (DUP 000038 (Ex. 36).) It has an acid content of about 11%. (DUP 000132 (Ex. 36).) Callaway admits that Nesbitt teaches the use of the ionomer blend found in Molitor '637 in a multi-layer golf ball. (*See* Response to Office Action Mailed February 27, 2007 in Reexam. Cont. No. 95/000,120 (Ex. 28) at 16.)
and having a modulus of from about 15,000 to about 70,000 psi; and	Surlyn® 1605 inherently exhibits the claimed modulus. "**Type 1605 Surlyn (Surlyn 8940)** is a sodium ion based low acid (less than or equal to 15 weight percent methacrylic acid) ionomer resin having a **flexural modulus of about 51,000 psi.**" ('293 patent (Ex. 1), col. 2, lines 55-59.)
an outer cover layer having a Shore D hardness of about 64 or less disposed about said inner cover layer and defining a plurality of dimples to form a multi-layer golf ball,	"An **outer layer, ply, lamination or cover 16** … is then **remolded onto the inner ply or layer 14**…." (Nesbitt (Ex. 1), col. 2, lines 43-47.) **Nesbitt:** Nesbitt teaches an outer cover layer made of Surlyn® 1855 (now Surlyn® 9020) that has a **Shore D hardness of 55**. (CW 00615792.) **Nesbitt Incorporates the Materials of Molitor '637 by Reference**: "Reference is made to the application Ser. No. 155,658 of **Robert P. Molitor issued into U.S. Pat. No. 4,274,637** which describes a number of foamable compositions of a character which may be employed for … layers … 16 for the golf ball of this invention." (Nesbitt (Ex. 10), col. 3, lines 54-60.) **Molitor '637**: Teaches the use of **Estane 58133** in Examples 16 and 17. (Molitor '637 (Ex. 12), col. 18.) Estane is a soft polyurethane material that has a **Shore D hardness of 55 measured off the ball**. (CW 00615792 (Ex. 46).) When measured **on the ball of Nesbitt** Molitor '637's outer cover layer has a Shore D hardness of 61.0. (MacKnight Decl.

Claim 3	**Nesbitt and Molitor '637**
	(Ex. 25) at ¶ 33.) "[T]he outer layer or cover 16 **being of dimpled configuration**…." (Nesbitt (Ex. 10), col. 2, lines 48-49; Fig. 2.)
said outer cover layer comprising a polyurethane based material and	**Nesbitt Incorporates Materials of Molitor by Reference**: "Reference is made to the application Ser. No. 155,658, of Robert P. Molitor issued into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for one or both layers 14 and 16." (Nesbitt (Ex. 10), col. 3, lines 54-60.) **Molitor '637**: Teaches cover materials including "polyurethanes such as are prepared from polyols and organic polyisocyanates"; specifically Estane 58133 thermoplastic polyurethane. (Molitor '637 (Ex. 12), col. 5, lines 39-41; col. 18, lines 31-59 (examples 16 and 17).)
said outer cover layer having a thickness of from about 0.010 to about 0.070 inches.	"The **thickness of the outer layer or cover 16** of soft, low flexural modulus resin such as Surlyn type 1855, **may be in the range of 0.020 inches and 0.100 inches**." (Nesbitt (Ex. 10), col. 3, lines 22-25.) "The **outer layer** of the soft resin is of **a thickness of 0.0575 inches**." (Nesbitt (Ex. 10), col. 3, lines 39-40.)

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NESBITT AND WU

Claim 1	**Nesbitt and Wu**
A golf ball comprising:	"The disclosure embraces **a golf ball** and method of making same …." (Nesbitt (Ex. 10), Abstract; FIGS 1 & 2.)
a core;	"Referring to the drawings in detail there is illustrated a golf ball 10 which comprises a **solid center or core** formed as a solid body of resilient polymeric material or rubber-like material in the shape of a sphere." (Nesbitt (Ex. 10), col. 2, lines 31-34.)
an inner cover layer disposed on said core,	"Disposed on the spherical center or core 12 is a first layer, lamination, ply or **inner cover 14** of molded hard, highly flexural modulus resinous material…." (Nesbitt (Ex. 10), col. 2, lines 34-37.)
said inner cover layer having a thickness of from about 0.100 to about 0.010 inches,	"It is found that the inner layer of hard, high flexural modulus resinous material such as Surlyn® resin type 1605, is preferably of a thickness in a range of 0.020 inches and 0.070 inches." (Nesbitt (Ex.10), col. 3, lines 19-23.)
said inner cover layer comprising a blend of two or more ionomer resins, at least one of which contains no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid; and	**Nesbitt Incorporates the Materials of Molitor '637 by Reference**: "Reference is made to the application Ser. No. 155,658 of **Robert P. Molitor issued into U.S. Pat. No. 4,274,637** which describes a number of foamable compositions of a character which may be employed for … layers 14 … for the golf ball of this invention." (Nesbitt (Ex. 10), col. 3, lines 54-60.) **Molitor '637**: Molitor teaches, in examples 1-7, cover materials including a blend of two ionomer resins: Surlyn 1605 and Surlyn 1557. (Molitor '637 (Ex. 12), col. 14, line 22 to col. 16, line 34.) Type 1605 Surlyn® is now designated Surlyn® 8940. ('293 patent, col. 2, lines 54-55.) It has about 15% acid. ('293 patent (Ex. 1), col. 2, lines 55-57.) Type 1557 Surlyn is now designated Surlyn 9650. (DUP 000038 (Ex. 36).) It has an acid content of about 11%. (DUP 000132 (Ex. 38).) Callaway admits that Nesbitt teaches the use of the ionomer blend found in Molitor '637 in a multi-layer golf ball. (*See* Response to Office Action Mailed February 27, 2007 in Reexam. Cont. No. 95/000,120 at 16.)

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Claim 1	**Nesbitt and Wu**
an outer cover layer disposed on said inner cover layer,	"An **outer layer, ply, lamination or cover 16** … is then remolded onto the inner ply or layer 14…." (Nesbitt (Ex. 10), col. 2, lines 43-47.)
said outer cover layer having a thickness of 0.010 to 0.070 inches,	"The **thickness of the outer layer or cover 16** of soft, low flexural modulus resin such as Surlyn type 1855, **may be in the range of 0.020 inches and 0.100 inches**." (Nesbitt (Ex. 10), col. 3, lines 22-25.) "The outer layer of the soft resin is of a thickness of **0.0575** inches." (Nesbitt (Ex. 10), col. 3, lines 39-40.)
and said outer cover layer comprising a polyurethane material,	**Nesbitt Incorporates the Materials of Molitor '637 by Reference**: "Reference is made to the application Ser. No. 155,658 of **Robert P. Molitor issued into U.S. Pat. No. 4,274,637** which describes a number of foamable compositions of a character which may be employed for … layers … 16 for the golf ball of this invention." (Nesbitt (Ex. 10), col. 3, lines 54-60.) **Molitor '637**: Teaches the use of **Estane 58133** in Examples 16 and 17. (Molitor '637 (Ex. 12), col. 18.) Estane is a soft polyurethane material that has a **Shore D hardness of 55 as measured "off the ball**." (CW 00615792 (Ex. 46).) **Wu** Wu discloses a golf ball cover formulation comprising a polyurethane. (Wu (Ex. 8), Table 1; col. 7, line 10—col. 8, ll. 35; claim 1.)
wherein said golf ball has an overall diameter of 1.680 inches or more,	"According to the United States Golf Association Rules, the **minimum diameter prescribed for a golf ball is 1.680 inches**…." (Nesbitt (Ex. 10), col. 2, lines 50-52.) "This center or core 12 and inner layer 14 of hard resinous material in the form of a sphere is then remolded into a dimpled **golf ball of a diameter of 1.680 inches minimum** with an outer or cover layer 16 of a soft, low flexural modulus resin…." (Nesbitt (Ex. 10), col. 3, lines 34-38.)
said inner cover layer having a Shore D hardness of at least 60,	**Nesbitt**: "[I]nner cover 14 of molded **hard**, high flexural modulus resinous material such as **type 1605 Surlyn® marketed by E.I DuPont de Nemours**." (Nesbitt (Ex. 10), col. 2, lines 36-38.) **Per the '293 Patent**: "Type 1605 Surlyn® (now designated Surlyn® 8940)." ('293 patent (Ex. 10), col. 2, lines 54-55.)

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Claim 1	Nesbitt and Wu
	OFF THE BALL **DuPont Surlyn Product Information:** Surlyn® 8940 (formerly 1605 (*see* '293 patent, col. 2, lines 54-55)) has a Shore D hardness of 66. ('293 patent (Ex. 1), Table 1.) **ON THE BALL** Measurements of Surlyns made "on the ball" are higher than plaque measurements and would also be above 60. (*See* Nesbitt Depo. Trans. (Ex. 16) at 244:12—244:17.) **Nesbitt Incorporates the Materials of Molitor '637 by Reference**: Molitor '637 discloses a blend of two ionomers. (Molitor '637 (Ex. 12), Table 1). Measurements of Surlyns made "on the ball" are higher than plaque measurements and would also be above 60. (*See* Nesbitt Depo. Trans. (Ex. 16) at 244:12—244:17.) Molitor '637 discloses a blend of two ionomers which has a Shore D hardness of 64.3 when measured "off the ball." (*See* "Blend 3" AC 0131414 (Ex. 34).)
and said outer cover layer having a Shore D hardness of less than 64.	**OFF THE BALL** **Nesbitt:** Nesbitt teaches an outer cover layer made of Surlyn® 1855, now Surlyn® 9020 ('293 patent, col. 2, lines (63-65.) It has a **Shore D hardness of 55** . (*See* CW 00512231 (Ex. 45).) **Nesbitt Incorporates the Materials of Molitor '637 by Reference**: "Reference is made to the application Ser. No. 155,658 of **Robert P. Molitor issued into U.S. Pat. No. 4,274,637** which describes a number of foamable compositions of a character which may be employed for … layers … 16 for the golf ball of this invention." (Nesbitt (Ex. 10), col. 3, lines 54-60.) **Molitor '637**: Teaches the use of **Estane 58133** in Examples 16 and 17. (Molitor '637 (Ex. 12), col. 18.) Estane is a soft polyurethane material that has a **Shore D hardness of 55 as measured "off the ball**." (CW 00615792 (Ex. 46).) **ON THE BALL** When measured **on the ball of Nesbitt** Molitor '637's outer cover layer has a Shore D hardness of 61.0. (MacKnight Decl. (Ex. 30) at ¶ 33.)

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Claim 1	**Nesbitt and Wu**
	Wu **ON THE BALL** Wu's polyurethane has a Shore D hardness of 55.6 when measured on Nesbitt's ball. (MacKnight Decl. (Ex. 30) at ¶ 33.) **OFF THE BALL** Off the ball measurements of polyurethanes are lower than on the ball the measurements (Wu Depo. Trans. (Ex. 33) at 60:14—60:24.) This material had a Shore D hardness of **51.6** when measured "off the ball." (*See* AC0131414 (Ex. 34) showing measurements of MDI prepolymer.)

Claim 3	**Nesbitt and Wu**
A multi-layer golf ball comprising:	"The disclosure embraces **a golf ball** and method of making same …." (Nesbitt (Ex. 10), Abstract; FIGS 1 & 2.)
a spherical core;	"Referring to the drawings in detail there is illustrated a golf ball 10 which comprises a **solid center or core** formed as a solid body of resilient polymeric material or rubber-like material in the shape of a sphere." (Nesbitt (Ex. 10), col. 2, lines 31-34.)
an inner cover layer having Shore D hardness of at least 60 disposed on said spherical core,	**Nesbitt**: "[I]nner cover 14 of molded **hard**, high flexural modulus resinous material such as **type 1605 Surlyn® marketed by E.I DuPont de Nemours**." (Nesbitt (Ex. 10), col. 2, lines 36-38.) **Per the '293 Patent**: "Type 1605 Surlyn® (now designated Surlyn® 8940)." ('293 patent (Ex. 10), col. 2, lines 54-55.) **OFF THE BALL** **DuPont Surlyn® Product Information**: Surlyn® 8940 (formerly Surlyn® 1605) has a Shore D hardness of 66. ('293 patent (Ex. 1), Table 1.) **Nesbitt Incorporates the Materials of Molitor '637 by Reference**: Molitor '637 discloses a blend of two ionomers which has a Shore D hardness of 64.3 when measured "off the ball." (*See* "Blend 3" AC 0131414 (Ex. 34).) **ON THE BALL** Measurements of Surlyns made "on the ball" are higher than plaque measurements and would also be above 60. (*See* Nesbitt Depo. Trans. (Ex. 16) at 244:12—244:17.)

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Claim 3	Nesbitt and Wu
	Nesbitt Incorporates the Materials of Molitor '637 by Reference: Molitor '637 discloses a blend of two ionomers (Molitor '637 (Ex. 12), Table 1.) Measurements of Surlyns made "on the ball" are higher than plaque measurements and would also be above 60. (*See* Nesbitt Depo. Trans. (Ex. 16) at 244:12—244:17.)
said inner cover layer comprising an ionomeric resin including no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid	**Nesbitt Incorporates the Materials of Molitor '637 by Reference**: "Reference is made to the application Ser. No. 155,658 of **Robert P. Molitor issued into U.S. Pat. No. 4,274,637** which describes a number of foamable compositions of a character which may be employed for … layers 14 … for the golf ball of this invention." (Nesbitt (Ex. 10), col. 3, lines 54-60.) **Molitor '637**: Molitor teaches, in examples 1-7, cover materials including a blend of two ionomer resins: Surlyn 1605 and Surlyn 1557. (Molitor '637 (Ex. 12), col. 14, line 22 to col. 16, line 34.) Type 1605 Surlyn® is now designated Surlyn® 8940. ('293 patent (Ex. 1), col. 2, lines 54-55.) It has about 15% acid. ('293 patent (Ex. 1), col. 2, lines 55-57.) Type 1557 Surlyn is now designated Surlyn 9650. (DUP 000038 (Ex. 36).) It has an acid content of about 11%. (DUP 000132 (Ex. 37).) Callaway admits that Nesbitt teaches the use of the ionomer blend found in Molitor '637 in a multi-layer golf ball. (*See* Response to Office Action Mailed February 27, 2007 in Reexam. Cont. No. 95/000,120 (Ex. 28) at 16.)
and having a modulus of from about 15,000 to about 70,000 psi; and	Surlyn® 1605 inherently exhibits the claimed modulus. "**Type 1605 Surlyn (Surlyn 8940)** is a sodium ion based low acid (less than or equal to 15 weight percent methacrylic acid) ionomer resin having a **flexural modulus of about 51,000 psi.**" ('293 patent (Ex. 1), col. 2, lines 55-59.)
an outer cover layer having a Shore D hardness of about 64 or less disposed about said inner cover layer and defining a plurality of dimples to form a multi-layer golf ball,	"An **outer layer, ply, lamination or cover 16** … is then **remolded onto the inner ply or layer 14**…." (Nesbitt (Ex. 10), col. 2, lines 43-47.) **Nesbitt:** Nesbitt teaches an outer cover layer made of Surlyn® 1855 (now Surlyn® 9020) that has a **Shore D hardness of 55**.

Claim 3	Nesbitt and Wu
	(CW 00615792 (Ex. 46).) **Nesbitt Incorporates the Materials of Molitor '637 by Reference**: "Reference is made to the application Ser. No. 155,658 of **Robert P. Molitor issued into U.S. Pat. No. 4,274,637** which describes a number of foamable compositions of a character which may be employed for … layers … 16 for the golf ball of this invention." (Nesbitt (Ex. 10), col. 3, lines 54-60.) **Molitor '637**: Teaches the use of **Estane 58133** in Examples 16 and 17. (Molitor '637 (Ex. 12), col. 18.) Estane is a soft polyurethane material that has a **Shore D hardness of 55 measured off the ball**. (CW 00615792 (Ex. 46).) When measured **on the ball of Nesbitt** Molitor '637's outer cover layer has a Shore D hardness of 61.0. (MacKnight Decl. (Ex. 30) at ¶ 33.) "[T]he outer layer or cover 16 **being of dimpled configuration**…." (Nesbitt (Ex. 10), col. 2, lines 48-49; Fig. 2.) **Wu** **ON THE BALL** Wu's polyurethane has a Shore D hardness of 55.6 when measured on Nesbitt's ball. (MacKnight Decl. (Ex. 30) at ¶ 33.) **OFF THE BALL** Off the ball measurements of polyurethanes are lower than on the ball the measurements (Wu Depo. Trans. (Ex. 33) at 60:14—60:24.) This material had a Shore D hardness of **51.6** when measured "off the ball." (*See* AC0131414 (Ex. 34) showing measurements of MDI prepolymer.)
said outer cover layer comprising a polyurethane based material and	**Nesbitt Incorporates Materials of Molitor by Reference**: "Reference is made to the application Ser. No. 155,658, of Robert P. Molitor issued into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for one or both layers 14 and 16." (Nesbitt (Ex. 10), col. 3, lines 54-60.) **Molitor '637**: Teaches cover materials including "polyurethanes such as are prepared from polyols and organic polyisocyanates"; specifically Estane 58133 thermoplastic polyurethane. (Molitor '637 (Ex. 12), col. 5, lines 39-41; col. 18, lines 31-59 (examples 16 and 17).) **Wu** Wu discloses a golf ball cover formulation comprising a

Claim 3	**Nesbitt and Wu**
	polyurethane. (Wu (Ex. 8), Table 1; col. 7, line 10—col. 8, ll. 35; claim 1.)
said outer cover layer having a thickness of from about 0.010 to about 0.070 inches.	"The **thickness of the outer layer or cover 16** of soft, low flexural modulus resin such as Surlyn type 1855, **may be in the range of 0.020 inches and 0.100 inches**." (Nesbitt (Ex. 10), col. 3, lines 22-25.) "The **outer layer** of the soft resin is of **a thickness of 0.0575 inches**." (Nesbitt (Ex 10), col. 3, lines 39-40.)

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NESBITT AND MOLITOR '751

Claim 1	**Nesbitt and Molitor '751**
A golf ball comprising:	"The disclosure embraces **a golf ball** and method of making same …." (Nesbitt (Ex. 10), Abstract; FIGS 1 & 2.)
a core;	"Referring to the drawings in detail there is illustrated a golf ball 10 which comprises a **solid center or core** formed as a solid body of resilient polymeric material or rubber-like material in the shape of a sphere." (Nesbitt (Ex. 10), col. 2, lines 31-34.)
an inner cover layer disposed on said core,	"Disposed on the spherical center or core 12 is a first layer, lamination, ply or **inner cover 14** of molded hard, highly flexural modulus resinous material…." (Nesbitt (Ex. 10), col. 2, lines 34-37.)
said inner cover layer having a thickness of from about 0.100 to about 0.010 inches,	"It is found that the inner layer of hard, high flexural modulus resinous material such as Surlyn® resin type 1605, is preferably of a thickness in a range of 0.020 inches and 0.070 inches." (Nesbitt (Ex. 10), col. 3, lines 19-23.)
said inner cover layer comprising a blend of two or more ionomer resins, at least one of which contains no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid; and	**Nesbitt Incorporates the Materials of Molitor '637 by Reference**: "Reference is made to the application Ser. No. 155,658 of **Robert P. Molitor issued into U.S. Pat. No. 4,274,637** which describes a number of foamable compositions of a character which may be employed for … layers 14 … for the golf ball of this invention." (Nesbitt (Ex. 10), col. 3, lines 54-60.) **Molitor '637**: Molitor teaches, in examples 1-7, cover materials including a blend of two ionomer resins: Surlyn 1605 and Surlyn 1557. (Molitor '637 (Ex. 12), col. 14, line 22 to col. 16, line 34.) Type 1605 Surlyn® is now designated Surlyn® 8940. ('293 patent (Ex. 1), col. 2, lines 54-55.) It has about 15% acid. ('293 patent (Ex. 1), col. 2, lines 55-57.) Type 1557 Surlyn is now designated Surlyn 9650. (DUP 000038 (Ex. 36).) It has an acid content of about 11%. (DUP 000132 (Ex. 37).) Callaway admits that Nesbitt teaches the use of the ionomer blend found in Molitor '637 in a multi-layer golf ball. (*See* Response to Office Action Mailed February 27, 2007 in Reexam. Cont. No. 95/000,120 (Ex. 28) at 16.) **Molitor '751**

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Claim 1	**Nesbitt and Molitor '751**
	Molitor '751 teaches blends comprising Surlyn 1605 (8940), Surlyn 1706 (9910). (Molitor '751 (Ex. 13), Table 1.) Each of these materials is less than 16% acid (*See* '293 patent (Ex. 1), col. 8, lines 20-27.)
an outer cover layer disposed on said inner cover layer,	"An **outer layer, ply, lamination or cover 16** … is then remolded onto the inner ply or layer 14…." (Nesbitt (Ex. 10) col. 2, lines 43-47.)
said outer cover layer having a thickness of 0.010 to 0.070 inches,	"The **thickness of the outer layer or cover 16** of soft, low flexural modulus resin such as Surlyn type 1855, **may be in the range of 0.020 inches and 0.100 inches**." (Nesbitt (Ex. 10), col. 3, lines 22-25.) "The outer layer of the soft resin is of a thickness of **0.0575** inches." (Nesbitt (Ex. 10), col. 3, lines 39-40.)
and said outer cover layer comprising a polyurethane material,	**Nesbitt Incorporates the Materials of Molitor '637 by Reference**: "Reference is made to the application Ser. No. 155,658 of **Robert P. Molitor issued into U.S. Pat. No. 4,274,637** which describes a number of foamable compositions of a character which may be employed for … layers … 16 for the golf ball of this invention." (Nesbitt (Ex. 10), col. 3, lines 54-60.) **Molitor '637**: Teaches the use of **Estane 58133** in Examples 16 and 17. (Molitor '637 (Ex. 12), col. 18.) Estane is a soft polyurethane material that has a **Shore D hardness of 55 as measured "off the ball**." (CW 00615792 (Ex. 46).) **Molitor '751:** "The preferred components of the cover material comprise a thermoplastic polyurethane . . . ." (Molitor '751 (Ex. 13), col. 3, lines 6-7.)
wherein said golf ball has an overall diameter of 1.680 inches or more,	"According to the United States Golf Association Rules, the **minimum diameter prescribed for a golf ball is 1.680 inches**…." (Nesbitt (Ex. 10), col. 2, lines 50-52.) "This center or core 12 and inner layer 14 of hard resinous material in the form of a sphere is then remolded into a dimpled **golf ball of a diameter of 1.680 inches minimum** with an outer or cover layer 16 of a soft, low flexural modulus resin…." (Nesbitt (Ex. 10), col. 3, lines 34-38.)
said inner cover layer having a Shore D hardness of at least 60,	**Nesbitt**: "[I]nner cover 14 of molded **hard**, high flexural modulus resinous material such as **type 1605 Surlyn® marketed by E.I DuPont de Nemours**." (Nesbitt (Ex. 10), col. 2, lines 36-38.) **Per the '293 Patent**: "Type 1605 Surlyn® (now designated Surlyn® 8940)." ('293 patent (Ex. 1), col. 2, lines 54-55.)

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Claim 1	**Nesbitt and Molitor '751**
	OFF THE BALL **DuPont Surlyn Product Information:** Surlyn® 8940 (formerly 1605 (*see* '293 patent, col. 2, lines 54-55)) has a Shore D hardness of 66. (*See* '293 patent (Ex. 1), Table 1.) **ON THE BALL** Measurements of Surlyns made "on the ball" are higher than plaque measurements and would also be above 60. *See* Nesbitt Depo. Trans. (Ex. 16) at 244:12—244:17.) **Nesbitt Incorporates the Materials of Molitor '637 by Reference**: Molitor '637 discloses a blend of two ionomers (Molitor '637 (Ex 12), Table 1.) Measurements of Surlyns made "on the ball" are higher than plaque measurements and would also be above 60. (Nesbitt Depo. Trans. (Ex. 16) at 244:12—244:17. Molitor '637 discloses a blend of two ionomers which has a Shore D hardness of 64.3 when measured "off the ball." (*See* "Blend 3" AC 0131414 (Ex. 34).)
and said outer cover layer having a Shore D hardness of less than 64.	**OFF THE BALL** **Nesbitt:** Nesbitt teaches an outer cover layer made of Surlyn® 1855, now Surlyn® 9020 ('293 patent, col. 2, lines (63-65.) It has a **Shore D hardness of 55** . (*See* CW 00512231 (Ex. 45).) **Nesbitt Incorporates the Materials of Molitor '637 by Reference**: "Reference is made to the application Ser. No. 155,658 of **Robert P. Molitor issued into U.S. Pat. No. 4,274,637** which describes a number of foamable compositions of a character which may be employed for … layers … 16 for the golf ball of this invention." (Nesbitt, col. 3, lines 54-60.) **Molitor '637**: Teaches the use of **Estane 58133** in Examples 16 and 17. (Molitor '637, col. 18.) Estane is a soft polyurethane material that has a **Shore D hardness of 55 as measured "off the ball**." (CW 00615792 (Ex. 46).) **ON THE BALL** When measured **on the ball of Nesbitt** Molitor '637's outer cover layer has a Shore D hardness of 61.0. (MacKnight Decl. (Ex. 30) at ¶ 33.) **Molitor '751:**

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<table>
<tr><th>Claim 1</th><th>Nesbitt and Molitor ‘751</th></tr>
<tr><td></td><td><u>ON THE BALL</u>
Molitor ‘751 discloses the following blend as the most preferred (Ex. 13, col. 7, line 25, Table):
<table>
<tr><th>Material</th><th>Parts</th></tr>
<tr><td>Texin 480 AR (now 285)</td><td>90</td></tr>
<tr><td>Surlyn 1605 (now 8940)</td><td>10</td></tr>
<tr><td>TiO2</td><td>5</td></tr>
<tr><td>Fluorescent Brightener</td><td>0.10</td></tr>
<tr><td>Antioxidant</td><td>0.17</td></tr>
<tr><td>Pigment</td><td>0.02</td></tr>
<tr><td>Release Agent</td><td>1</td></tr>
</table>
When measured on Nesbitt’s ball, this cover has a Shore D hardness of hardness of 49.6. (MacKnight Decl. (Ex. 30) at ¶ 33).
<u>OFF THE BALL</u>
When measured off the ball, this formulation had a Shore D hardness of 39.5 (See “Texin Blend” average Shore D hardness at AC 0131414 (Ex. 34).)</td></tr>
</table>

Claim 3	Nesbitt and Molitor ‘751
A multi-layer golf ball comprising:	“The disclosure embraces **a golf ball** and method of making same ….” (Nesbitt (Ex. 10), Abstract; FIGS 1 & 2.)
a spherical core;	“Referring to the drawings in detail there is illustrated a golf ball 10 which comprises a **solid center or core** formed as a solid body of resilient polymeric material or rubber-like material in the shape of a sphere.” (Nesbitt (Ex. 10), col. 2, lines 31-34.)
an inner cover layer having Shore D hardness of at least 60 disposed on said spherical core,	**<u>Nesbitt</u>**: “[I]nner cover 14 of molded **hard**, high flexural modulus resinous material such as **type 1605 Surlyn® marketed by E.I DuPont de Nemours**.” (Nesbitt (Ex. 10), col. 2, lines 36-38.) **<u>Per the ’293 Patent</u>**: “Type 1605 Surlyn® (now designated Surlyn® 8940).” (’293 patent (Ex. 1), col. 2, lines 54-55.)

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Claim 3	Nesbitt and Molitor '751
	OFF THE BALL **DuPont Surlyn® Product Information**: Surlyn® 8940 (formerly Surlyn® 1605) has a Shore D hardness of 66. ('293 patent (Ex. 1), Table 1.) **Nesbitt Incorporates the Materials of Molitor '637 by Reference**: Molitor '637 discloses a blend of two ionomers which has a Shore D hardness of 64.3 when measured "off the ball." (*See* "Blend 3" AC 0131414 (Ex. 34).) **ON THE BALL** Measurements of Surlyns made "on the ball" are higher than plaque measurements and would also be above 60. (Nesbitt Depo. Trans. (Ex. 16) at 244:12—244:17.) **Nesbitt Incorporates the Materials of Molitor '637 by Reference**: Molitor '637 discloses a blend of two ionomers (Molitor '637 (Ex. 12), Table 1). Measurements of Surlyns made "on the ball" are higher than plaque measurements and would also be above 60. (Nesbitt Depo. Trans. (Ex. 16) at 244:12—244:17.)
said inner cover layer comprising an ionomeric resin including no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid	**Nesbitt Incorporates the Materials of Molitor '637 by Reference**: "Reference is made to the application Ser. No. 155,658 of **Robert P. Molitor issued into U.S. Pat. No. 4,274,637** which describes a number of foamable compositions of a character which may be employed for … layers 14 … for the golf ball of this invention." (Nesbitt (Ex. 10), col. 3, lines 54-60.) **Molitor '637**: Molitor teaches, in examples 1-7, cover materials including a blend of two ionomer resins: Surlyn 1605 and Surlyn 1557. (Molitor '637 (Ex. 12), col. 14, line 22 to col. 16, line 34.) Type 1605 Surlyn® is now designated Surlyn® 8940. ('293 patent (Ex. 1), col. 2, lines 54-55.) It has about 15% acid. ('293 patent (Ex. 1), col. 2, lines 55-57.) Type 1557 Surlyn is now designated Surlyn 9650. (DUP 000038 (Ex. 36).) It has an acid content of about 11%. (DUP 000132 (Ex. 36).) Callaway admits that Nesbitt teaches the use of the ionomer

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Claim 3	Nesbitt and Molitor '751
	blend found in Molitor '637 in a multi-layer golf ball. (*See* Response to Office Action Mailed February 27, 2007 in Reexam. Cont. No. 95/000,120 (Ex. 28) at 16.) **Molitor '751** Molitor '751 teaches blends comprising Surlyn 1605 (8940), Surlyn 1706 (9910). (Molitor '751, Table 1.) Each of these materials is less than 16% acid (*See* '293 patent (Ex. 1), col. 8, lines 20-27.)
and having a modulus of from about 15,000 to about 70,000 psi; and	Surlyn® 1605 inherently exhibits the claimed modulus. "**Type 1605 Surlyn (Surlyn 8940)** is a sodium ion based low acid (less than or equal to 15 weight percent methacrylic acid) ionomer resin having a **flexural modulus of about 51,000 psi.**" ('293 patent (Ex. 1), col. 2, lines 55-59.)
an outer cover layer having a Shore D hardness of about 64 or less disposed about said inner cover layer and defining a plurality of dimples to form a multi-layer golf ball,	"An **outer layer, ply, lamination or cover 16** … is then **remolded onto the inner ply or layer 14**…." (Nesbitt (Ex. 10), col. 2, lines 43-47.) **Nesbitt:** Nesbitt teaches an outer cover layer made of Surlyn® 1855 (now Surlyn® 9020) that has a **Shore D hardness of 55**. (CW 00615792 (Ex. 46).) **Nesbitt Incorporates the Materials of Molitor '637 by Reference**: "Reference is made to the application Ser. No. 155,658 of **Robert P. Molitor issued into U.S. Pat. No. 4,274,637** which describes a number of foamable compositions of a character which may be employed for … layers … 16 for the golf ball of this invention." (Nesbitt (Ex. 10), col. 3, lines 54-60.) **Molitor '637**: Teaches the use of **Estane 58133** in Examples 16 and 17. (Molitor '637, col. 18.) Estane is a soft polyurethane material that has a **Shore D hardness of 55 measured off the ball**. (CW 00615792 (Ex. 46).) When measured **on the ball of Nesbitt** Molitor '637's outer cover layer has a Shore D hardness of 61.0. (MacKnight Decl. (Ex. 30) at ¶ 33.) "[T]he outer layer or cover 16 **being of dimpled configuration**…." (Nesbitt (Ex. 10), col. 2, lines 48-49; Fig. 2.) **Molitor '751:** **ON THE BALL** Molitor '751 discloses the following blend as the most preferred

<table>
<tr><th>Claim 3</th><th>Nesbitt and Molitor ‘751</th></tr>
<tr><td></td><td>(Molitor ‘751 (Ex. 13), col. 7, line 25, Table):
<table><tr><th>Material</th><th>Parts</th></tr><tr><td>Texin 480 AR (now 285)</td><td>90</td></tr><tr><td>Surlyn 1605 (now 8940)</td><td>10</td></tr><tr><td>TiO2</td><td>5</td></tr><tr><td>Fluorescent Brightener</td><td>0.10</td></tr><tr><td>Antioxidant</td><td>0.17</td></tr><tr><td>Pigment</td><td>0.02</td></tr><tr><td>Release Agent</td><td>1</td></tr></table>When measured on Nesbitt’s ball, this cover has a Shore D hardness of hardness of 49.6. (MacKnight Decl. (Ex. 30) at ¶ 33).
<u>OFF THE BALL</u>
When measured off the ball, this formulation had a Shore D hardness of 39.5 (See “Texin Blend” average Shore D hardness at AC 0131414 (Ex. 34).)</td></tr>
<tr><td>said outer cover layer comprising a polyurethane based material and</td><td><u>Nesbitt Incorporates Materials of Molitor by Reference</u>: “Reference is made to the application Ser. No. 155,658, of Robert P. Molitor issued into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for one or both layers 14 and 16.” (Nesbitt (Ex. 10), col. 3, lines 54-60.)

<u>Molitor ’637</u>: Teaches cover materials including “polyurethanes such as are prepared from polyols and organic polyisocyanates”; specifically Estane 58133 thermoplastic polyurethane. (Molitor ’637 (Ex. 12), col. 5, lines 39-41; col. 18, lines 31-59 (examples 16 and 17).)
<u>Molitor ‘751</u>
Molitor ‘751 teaches blends comprising Surlyn 1605 (8940), Surlyn 1706 (9910). (Molitor ‘751 (Ex. 13), Table 1.) Each of these materials is less than 16% acid (See ‘293 patent (Ex. 1), col. 8, lines 20-27.)</td></tr>
<tr><td>said outer cover layer having a thickness of from about 0.010 to about 0.070 inches.</td><td>“The thickness of the outer layer or cover 16 of soft, low flexural modulus resin such as Surlyn type 1855, may be in the range of 0.020 inches and 0.100 inches.” (Nesbitt (Ex. 10), col.</td></tr>
</table>

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Claim 3	Nesbitt and Molitor '751
	3, lines 22-25.) "The **outer layer** of the soft resin is of **a thickness of 0.0575 inches**." (Nesbitt (Ex. 10), col. 3, lines 39-40.)

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PROUDFIT AND MOLITOR '637

Claim 1	**Proudfit and Molitor '637**
A golf ball comprising:	"This **invention relates to golf balls**, and more particularly, to a golf ball having a two-layer cover." (Proudfit (Ex. 5), col. 1, lines 11-12.)
a core;	"FIG. 1 illustrates a two-piece golf ball 10 which includes a **solid core 11** and a cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins and a relatively soft outer layer 14 of polymeric material." (Proudfit (Ex. 5), col. 7, lines 21-24.) "Two specific **solid core compositions** used with the new two-layer cover had the composition described in Table 1. **One core** was used in a golf ball which was designated as a 90 compression ball, and **the other core** was used in a golf ball which was designated as a 100 compression ball." (Proudfit (Ex. 5), col. 7, lines 51-55.)
an inner cover layer disposed on said core,	"FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a **cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins** and a relatively soft outer layer 14 of polymeric material." (Proudfit (Ex. 5), col. 7, lines 21-24.)
said inner cover layer having a thickness of from about 0.100 to about 0.010 inches,	"The **thickness of the inner layer can be** within the range of about **0.0250 to 0.2875 inch** to provide a total diameter of the inner layer and core within the range of about 1.550 to 1.590 inch." (Proudfit (Ex. 5), col. 7, lines 37-40.) "The preferred dimensions are … and **inner layer thickness of 0.037 inch**…." (Proudfit (Ex. 5), col. 7, lines 43-44.)
said inner cover layer comprising a blend of two or more ionomer resins, at least one of which contains no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid; and	"The composition of the inner cover layer is described in Table 6." TABLE 6 Composition of Inner Layer of Cover (Parts by Weight) Ionomer Type — Blend Ratio Sodium- Surlyn 8940 — 75% Zinc- Surlyn 9910 — 25% (Proudfit (Ex. 5), col. 8, lines 22-30.) Surlyn® 8940 and Surlyn® 9910 are both low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid.

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Claim 1	**Proudfit and Molitor '637**
an outer cover layer disposed on said inner cover layer,	"FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a **cover 12 which comprises** a relatively hard inner layer 13 of one or more ionomer resins and **a relatively soft outer layer 14 of polymeric material.**" (Proudfit (Ex. 5), col. 7, lines 21-24.)
said outer cover layer having a thickness of 0.010 to 0.070 inches,	"The **thickness of the outer layer can be** within the range of about **0.0450 to 0.0650 inch** to provide a total ball diameter of 1.680 inch. The preferred dimensions are … an **outer layer thickness of 0.0525 inch**…." (Proudfit (Ex. 5), col. 7, lines 40-46.)
and said outer cover layer comprising a polyurethane material,	"… an **outer layer** of soft material such as balata or **a blend of balata and other elastomers**." (Proudfit (Ex. 5), col. 5, lines 15-17.) **Molitor '637**: Estane 58133 is a relatively soft polyurethane material. (Molitor '637 (Ex. 12), col. 18.)
wherein said golf ball has an overall diameter of 1.680 inches or more,	"The preferred dimensions are a core diameter of 1.500 inch, and inner layer thickness of 0.037 inch (inner layer diameter of 1.575 inch), and an outer layer thickness of 0.0525 inch **(total ball diameter of 1.680 inch)**." (Proudfit (Ex. 5), col. 7, lines 43-47.)
said inner cover layer having a Shore D hardness of at least 60,	"The composition of the inner cover layer is described in Table 6." TABLE 6 Composition of Inner Layer of Cover (Parts by Weight) Ionomer Type — Blend Ratio Sodium- Surlyn 8940 — 75% Zinc- Surlyn 9910 — 25% (Proudfit (Ex. 5), col. 8, lines 22-30.) Surlyn® 8940 has a Shore D hardness of 65; Surlyn® 9910 has a Shore D hardness of 64 and Surlyn® 8940 has a Shore D hardness of 66; Surlyn® 9910 has a Shore D hardness of 64 (CW 00512231 (Ex. 45).) Therefore, this cover blend has a hardness of 60 or more when measured off the ball, specifically 64.7. (*See* "Blend 2" described in AC 0131414 (Ex. 34).) "The inner layer can be molded in one of two methods: 1. **Injection molded** over the core in a manner which is conventionally used to injection mold ionomers over a solid core.

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Claim 1	**Proudfit and Molitor '637**
	2. Injection mold halfshells, place halfshells over the core, **compression mold the inner cover over the core**." (Proudfit (Ex. 5), col. 8, lines 32-38.) Therefore, this cover blend inherently has a hardness of 60 or more. (*See also* Decl. of Edmund A. Hebert (Ex. 25) at ¶¶ 8-9.)
and said outer cover layer having a Shore D hardness of less than 64.	"… an **outer layer of soft material** such as balata or a blend of balata and other elastomers." (col. 5, lines 15-17.) Balata has a Shore D hardness of less than 64. (*See* Decl. of Edmund A. Hebert at ¶ 7; Nesbitt Depo. Trans. at 121:2—121:5.). The Wilson Ultra Tour Balata Ball, which is made according to the Proudfit patent (*See* CW 0302942-47 (Ex. 47), has a Shore D hardness of less than 64 when measured on the ball. (*See* AC 0131413 (Ex. 34).) **Molitor '637**: Teaches the use of **Estane 58133** in Examples 16 and 17. (Molitor '637, col. 18.) Estane is a soft polyurethane material that has a **Shore D hardness of 55 as measured "off the ball**." (CW 00615792 (Ex. 46).) **ON THE BALL** When measured **on the ball of Proudfit** Molitor '637's outer cover layer has a Shore D hardness of **59.4**. (MacKnight Decl. (Ex. 30) at ¶ 33.)

Claim 3	**Proudfit and Molitor '637**
A multi-layer golf ball comprising:	"This **invention relates to golf balls**, and more particularly, to a golf ball having a **two-layer cover**." (Proudfit (Ex. 5), col. 1, lines 11-12.)
a spherical core;	"FIG. 1 illustrates a two-piece golf ball 10 which includes a **solid core 11** and a cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins and a relatively soft outer layer 14 of polymeric material." (col. 7, lines 21-24; FIGS 1, 2.) "Two specific **solid core compositions** used with the new two-layer cover had the composition described in Table 1. **One core** was used in a golf ball which was designated as a 90 compression ball, and **the other core** was used in a golf ball which was designated as a 100 compression ball." (Proudfit (Ex. 5), col. 7, lines 51-55.)

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Claim 3	Proudfit and Molitor '637
an inner cover layer having Shore D hardness of at least 60 disposed on said spherical core,	"The composition of the inner cover layer is described in Table 6." **TABLE 6** Composition of Inner Layer of Cover (Parts by Weight) Ionomer Type — Blend Ratio Sodium- Surlyn 8940 — 75% Zinc- Surlyn 9910 — 25% (Proudfit (Ex. 5), col. 8, lines 22-30.) Surlyn® 8940 has a Shore D hardness of 66; Surlyn® 9910 has a Shore D hardness of 64 (CW 00512231 (Ex. 45).) Therefore, this cover blend has a hardness of 60 or more when measured off the ball, specifically 64.7. (*See* "Blend 2" described in AC 0131414 (Ex. 34).) Therefore, this cover blend inherently has a hardness of 60 or more. (*See also* Decl. of Edmund A. Hebert (Ex. 25) at ¶¶ 8-9.) "The inner layer can be molded in one of two methods: 1. **Injection molded** over the core in a manner which is conventionally used to injection mold ionomers over a solid core. 2. Injection mold halfshells, place halfshells over the core, **compression mold the inner cover over the core**." (Proudfit (Ex. 5), col. 8, lines 32-38.)
said inner cover layer comprising an ionomeric resin including no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid	"The composition of the inner cover layer is described in Table 6." **TABLE 6** Composition of Inner Layer of Cover (Parts by Weight) Ionomer Type — Blend Ratio Sodium- Surlyn 8940 — 75% Zinc- Surlyn 9910 — 25% (Proudfit (Ex. 5), col. 8, lines 22-30.) Surlyn® 8940 and Surlyn® 9910 are both low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid.

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Claim 3	Proudfit and Molitor '637
and having a modulus of from about 15,000 to about 70,000 psi; and	"The **standard resins have a flexural modulus in the range of about 30,000 to about 55,000 psi** as measured by ATM Method D-790. (Standard resins are referred to as "hard Surlyns" in U.S. Patent No. 4,884,814.)" (Proudfit (Ex. 5), col. 5, line 66-col. 6, line 1.) "Specific **standard Surlyn resins** which can be used in the **inner layer include 8940 (sodium), 9910 (zinc)** …." (Proudfit (Ex. 5), col. 6, lines 6-7.) "The **composition of the inner cover layer** is described in Table 6." **TABLE 6** Composition of Inner Layer of Cover (Parts by Weight) Ionomer Type — Blend Ratio Sodium- Surlyn 8940 — 75% Zinc- Surlyn 9910 — 25% (Proudfit (Ex. 5), col. 8, lines 22-30.) Surlyn 8940 has a flexural modulus of **51,000 psi** (CW 00512231 (Ex. 45)), while Surlyn 9910 has a flexural modulus of **48,000 psi** (*Id.*)
an outer cover layer having a Shore D hardness of about 64 or less disposed about said inner cover layer and defining a plurality of dimples to form a multi-layer golf ball,	"… an **outer layer of soft material** such as balata or a blend of balata and other elastomers." (col. 5, lines 15-17.) Balata has a Shore D hardness of less than 64. (*See* Decl. of Edmund A. Hebert (Ex. 25) at ¶ 7; Nesbitt Depo. Trans. (Ex. 6) at 121:2—121:5.). The Wilson Ultra Tour Balata Ball, which is made according to the Proudfit patent (*See* CW 0302942-47 (Ex. 47)) has a Shore D hardness of less than 64 when measured on the ball. (*See* AC 0131413 (Ex. 34).) **Molitor '637**: Teaches the use of **Estane 58133** in Examples 16 and 17. (Molitor '637, col. 18.) Estane is a soft polyurethane material that has a **Shore D hardness of 55 as measured "off the ball**." (CW 00615792 (Ex. 46).) **ON THE BALL** When measured **on the ball of Proudfit** Molitor '637's outer cover layer has a Shore D hardness of **59.4**. (MacKnight Decl. (Ex. 30) at ¶ 33.)

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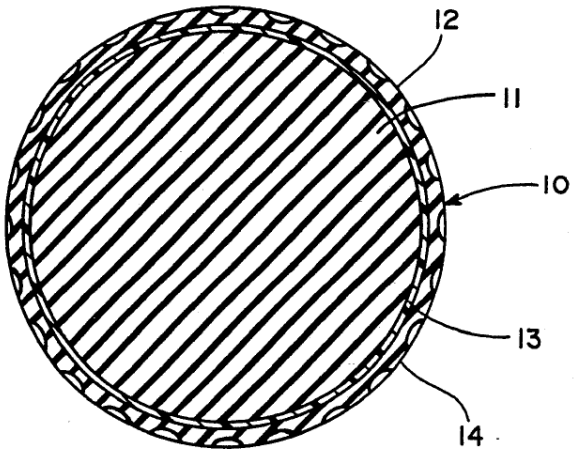
Claim 3	**Proudfit and Molitor '637**
	[Proudfit (Ex. 5,)Fig. 1 shows a plurality of dimples] **Fig. 1** 
said outer cover layer comprising a polyurethane based material and	"… an **outer layer** of soft material such as **balata or a blend of balata and other elastomers**." (Proudfit (Ex. 5), col. 5, lines 15-17.) **Molitor '637**: Estane 58133 is a relatively soft polyurethane material. (Molitor '637 (Ex. 12), col. 18.)
said outer cover layer having a thickness of from about 0.010 to about 0.070 inches.	"The **thickness of the outer layer can be** within the range of about **0.0450 to 0.0650 inch** to provide a total ball diameter of 1.680 inch. The preferred dimensions are … an **outer layer thickness of 0.0525 inch**…." (Proudfit (Ex. 5), col. 7, lines 40-46.)

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PROUDFIT AND WU

Claim 1	**Proudfit and Wu**
A golf ball comprising:	"This **invention relates to golf balls**, and more particularly, to a golf ball having a two-layer cover." (Proudfit (Ex. 5), col. 1, lines 11-12.)
a core;	"FIG. 1 illustrates a two-piece golf ball 10 which includes a **solid core 11** and a cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins and a relatively soft outer layer 14 of polymeric material." (Proudfit (Ex. 5), col. 7, lines 21-24.) "Two specific **solid core compositions** used with the new two-layer cover had the composition described in Table 1. **One core** was used in a golf ball which was designated as a 90 compression ball, and **the other core** was used in a golf ball which was designated as a 100 compression ball." (Proudfit (Ex. 5), col. 7, lines 51-55.)
an inner cover layer disposed on said core,	"FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a **cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins** and a relatively soft outer layer 14 of polymeric material." (Proudfit (Ex. 5), col. 7, lines 21-24.)
said inner cover layer having a thickness of from about 0.100 to about 0.010 inches,	"The **thickness of the inner layer can be** within the range of about **0.0250 to 0.2875 inch** to provide a total diameter of the inner layer and core within the range of about 1.550 to 1.590 inch." (Proudfit (Ex. 5), col. 7, lines 37-40.) "The preferred dimensions are … and **inner layer thickness of 0.037 inch**…." (Proudfit (Ex. 5), col. 7, lines 43-44.)
said inner cover layer comprising a blend of two or more ionomer resins, at least one of which contains no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid; and	"The composition of the inner cover layer is described in Table 6." TABLE 6 Composition of Inner Layer of Cover (Parts by Weight) Ionomer Type — Blend Ratio Sodium- Surlyn 8940 — 75% Zinc- Surlyn 9910 — 25% (Proudfit (Ex. 5), col. 8, lines 22-30.) Surlyn® 8940 and Surlyn® 9910 are both low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid. (*See* '293 patent

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Claim 1	Proudfit and Wu
	(Ex. 1), col. 8, lines 20-27.)
an outer cover layer disposed on said inner cover layer,	"FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a **cover 12 which comprises** a relatively hard inner layer 13 of one or more ionomer resins and **a relatively soft outer layer 14 of polymeric material.**" (Proudfit (Ex. 5), col. 7, lines 21-24.)
said outer cover layer having a thickness of 0.010 to 0.070 inches,	"The **thickness of the outer layer can be** within the range of about **0.0450 to 0.0650 inch** to provide a total ball diameter of 1.680 inch. The preferred dimensions are … an **outer layer thickness of 0.0525 inch**…." (Proudfit (Ex. 5), col. 7, lines 40-46.)
and said outer cover layer comprising a polyurethane material,	"… an **outer layer** of soft material such as balata or **a blend of balata and other elastomers**." (Proudfit (Ex. 5), col. 5, lines 15-17.) **Wu** Wu discloses a golf ball cover formulation comprising a polyurethane. (Wu (Ex. 8), Table 1; col. 7, line 10—col. 8, ll. 35; claim 1.)
wherein said golf ball has an overall diameter of 1.680 inches or more,	"The preferred dimensions are a core diameter of 1.500 inch, and inner layer thickness of 0.037 inch (inner layer diameter of 1.575 inch), and an outer layer thickness of 0.0525 inch **(total ball diameter of 1.680 inch)**." (Proudfit (Ex. 5), col. 7, lines 43-47.)
said inner cover layer having a Shore D hardness of at least 60,	"The composition of the inner cover layer is described in Table 6." TABLE 6 Composition of Inner Layer of Cover (Parts by Weight) Ionomer Type — Blend Ratio Sodium- Surlyn 8940 — 75% Zinc- Surlyn 9910 — 25% (col. 8, lines 22-30.) Surlyn® 8940 has a Shore D hardness of 66; Surlyn® 9910 has a Shore D hardness of 64 (CW 00512231 (Ex. .) Therefore, this cover blend has a hardness of 60 or more when measured off the ball, specifically 64.7. (*See* "Blend 2" described in AC 0131414 (Ex. 34).) "The inner layer can be molded in one of two methods: 1. **Injection molded** over the core in a manner which

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Claim 1	Proudfit and Wu
	is conventionally used to injection mold ionomers over a solid core. 2. Injection mold halfshells, place halfshells over the core, **compression mold the inner cover over the core**." (Proudfit (Ex. 5), col. 8, lines 32-38.) Therefore, this cover blend inherently has a hardness of 60 or more. (*See also* Decl. of Edmund A. Hebert (Ex. 25) at ¶¶ 8-9.)
and said outer cover layer having a Shore D hardness of less than 64.	"… an **outer layer of soft material** such as balata or a blend of balata and other elastomers." (col. 5, lines 15-17.) Balata has a Shore D hardness of less than 64. (*See* Decl. of Edmund A. Hebert (Ex. 25) at ¶ 7; Nesbitt Depo. Trans. (Ex. 16) at 121:2—121:5.) The Wilson Ultra Tour Balata Ball, which is made according to the Proudfit patent (*See* CW 0302942-47 (Ex. 47)) has a Shore D hardness of less than 64 when measured on the ball. (*See* AC 0131413 (Ex. 34).) **Wu** **ON THE BALL** Wu's polyurethane has a Shore D hardness of 56.8 when measured on Proudfit's ball. (MacKnight Decl. (Ex. 30) at ¶ 33.) **OFF THE BALL** Off the ball measurements of polyurethanes are lower than on the ball measurements (Wu Depo. Trans. at 60:14—60:24.) This material had a Shore D hardness of **51.6** when measured "off the ball." (*See* AC0131414 (Ex. 34) showing measurements of MDI prepolymer.)

Claim 3	Proudfit and Wu
A multi-layer golf ball comprising:	"This **invention relates to golf balls**, and more particularly, to a golf ball having a **two-layer cover**." (Proudfit (Ex. 5), col. 1, lines 11-12.)
a spherical core;	"FIG. 1 illustrates a two-piece golf ball 10 which includes a **solid core 11** and a cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins and a relatively soft outer layer 14 of polymeric material." (Proudfit (Ex. 5), col. 7, lines 21-24; FIGS 1, 2.) "Two specific **solid core compositions** used with the

Claim 3	Proudfit and Wu
	new two-layer cover had the composition described in Table 1. **One core** was used in a golf ball which was designated as a 90 compression ball, and **the other core** was used in a golf ball which was designated as a 100 compression ball." (Proudfit (Ex. 5), col. 7, lines 51-55.)
an inner cover layer having Shore D hardness of at least 60 disposed on said spherical core,	"The composition of the inner cover layer is described in Table 6." **TABLE 6** Composition of Inner Layer of Cover (Parts by Weight) Ionomer Type — Blend Ratio Sodium- Surlyn 8940 — 75% Zinc- Surlyn 9910 — 25% (Proudfit (Ex. 5), col. 8, lines 22-30.) Surlyn® 8940 has a Shore D hardness of 66; Surlyn® 9910 has a Shore D hardness of 64 (CW 00512231 (Ex. 45).) Therefore, this cover blend has a hardness of 60 or more when measured off the ball, specifically 64.7. (*See* "Blend 2" described in AC 0131414 (Ex. 34).) Therefore, this cover blend inherently has a hardness of 60 or more. (*See also* Decl. of Edmund A. Hebert (Ex. 25)at ¶¶ 8-9.) "The inner layer can be molded in one of two methods: 1. **Injection molded** over the core in a manner which is conventionally used to injection mold ionomers over a solid core. 2. Injection mold halfshells, place halfshells over the core, **compression mold the inner cover over the core**." (Proudfit (Ex. 5), col. 8, lines 32-38.)
said inner cover layer comprising an ionomeric resin including no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid	"The composition of the inner cover layer is described in Table 6."

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Claim 3	Proudfit and Wu
	TABLE 6 Composition of Inner Layer of Cover (Parts by Weight) Ionomer Type — Blend Ratio Sodium- Surlyn 8940 — 75% Zinc- Surlyn 9910 — 25% (Proudfit (Ex. 5), col. 8, lines 22-30.) Surlyn® 8940 and Surlyn® 9910 are both low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid. (*See* '293 patent (Ex. 1), col. 8, lines 20-27.)
and having a modulus of from about 15,000 to about 70,000 psi; and	"The **standard resins have a flexural modulus in the range of about 30,000 to about 55,000 psi** as measured by ATM Method D-790. (Standard resins are referred to as "hard Surlyns" in U.S. Patent No. 4,884,814.)" (Proudfit (Ex. 5), col. 5, line 66-col. 6, line 1.) "Specific **standard Surlyn resins** which can be used in the **inner layer include 8940 (sodium), 9910 (zinc)** …." (Proudfit (Ex. 5), col. 6, lines 6-7.) "The **composition of the inner cover layer** is described in Table 6." TABLE 6 Composition of Inner Layer of Cover (Parts by Weight) Ionomer Type — Blend Ratio Sodium- Surlyn 8940 — 75% Zinc- Surlyn 9910 — 25% (Proudfit (Ex. 5), col. 8, lines 22-30.) Surlyn 8940 has a flexural modulus of **51,000 psi** (CW 00512231 (Ex. 45)), while Surlyn 9910 has a flexural modulus of **48,000 psi** (*Id.*)
an outer cover layer having a Shore D hardness of about 64 or less disposed about said inner cover layer and defining a plurality of dimples to form a multi-layer golf ball,	"… an **outer layer of soft material** such as balata or a blend of balata and other elastomers." (Proudfit (Ex. 5), col. 5, lines 15-17.) Balata has a Shore D hardness of less than 64. (*See* Decl. of Edmund A. Hebert (Ex. 25) at ¶ 7; Nesbitt Depo. Trans. (Ex. 6) at 121:2—121:5.). The Wilson Ultra Tour Balata Ball, which is made according to the Proudfit patent (*See* CW 0302942-47 (Ex. 47)) has a Shore D hardness of less than 64 when measured on the ball. (*See* AC 0131413 (Ex. 34).)

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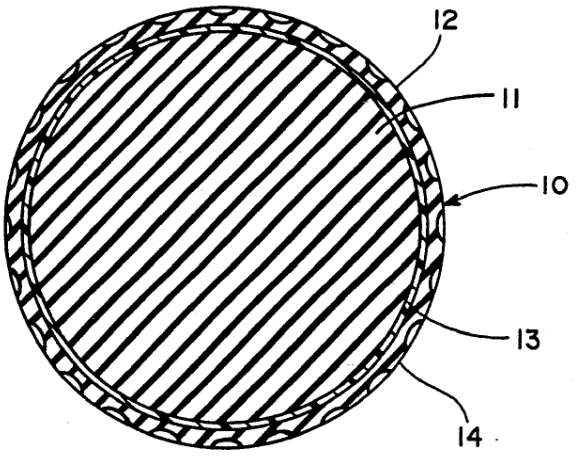
Claim 3	Proudfit and Wu
	Wu **ON THE BALL** Wu's polyurethane has a Shore D hardness of 56.8 when measured on Proudfit's ball. (MacKnight Decl. (Ex. 30) at ¶ 33.) **OFF THE BALL** Off the ball measurements of polyurethanes are lower than on the ball measurements (Wu Depo. Trans. (Ex. 33) at 60:14—60:24.) This material had a Shore D hardness of **51.6** when measured "off the ball." (*See* AC0131414 (Ex. 34) showing measurements of MDI prepolymer.) *[Proudfit (Ex. 5) Fig. 1 shows a plurality of dimples]* **Fig. 1** 
said outer cover layer comprising a polyurethane based material and	"… an **outer layer** of soft material such as **balata or a blend of balata and other elastomers**." (Proudfit (Ex. 5), col. 5, lines 15-17.) **Wu** Wu discloses a golf ball cover formulation comprising a polyurethane. (Wu (Ex. 8), Table 1; col. 7, line 10—col. 8, ll. 35; claim 1.)
said outer cover layer having a thickness of from about 0.010 to about 0.070 inches.	"The **thickness of the outer layer can be** within the range of about **0.0450 to 0.0650 inch** to provide a total ball diameter of 1.680 inch. The preferred dimensions

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Claim 3	Proudfit and Wu
	are … an **outer layer thickness of 0.0525 inch**….” (Proudfit (Ex. 5), col. 7, lines 40-46.)

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PROUDFIT AND MOLITOR '751

Claim 1	**Proudfit and Molitor '751**
A golf ball comprising:	"This **invention relates to golf balls**, and more particularly, to a golf ball having a two-layer cover." (Proudfit (Ex. 5), col. 1, lines 11-12.)
a core;	"FIG. 1 illustrates a two-piece golf ball 10 which includes a **solid core 11** and a cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins and a relatively soft outer layer 14 of polymeric material." (Proudfit (Ex. 5), col. 7, lines 21-24.) "Two specific **solid core compositions** used with the new two-layer cover had the composition described in Table 1. **One core** was used in a golf ball which was designated as a 90 compression ball, and **the other core** was used in a golf ball which was designated as a 100 compression ball." (Proudfit (Ex. 5), col. 7, lines 51-55.)
an inner cover layer disposed on said core,	"FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a **cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins** and a relatively soft outer layer 14 of polymeric material." (Proudfit (Ex. 5), col. 7, lines 21-24.)
said inner cover layer having a thickness of from about 0.100 to about 0.010 inches,	"The **thickness of the inner layer can be** within the range of about **0.0250 to 0.2875 inch** to provide a total diameter of the inner layer and core within the range of about 1.550 to 1.590 inch." (col. 7, lines 37-40.) "The preferred dimensions are … and **inner layer thickness of 0.037 inch**…." (Proudfit (Ex. 5), col. 7, lines 43-44.)
said inner cover layer comprising a blend of two or more ionomer resins, at least one of which contains no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid; and	"The composition of the inner cover layer is described in Table 6." **TABLE 6** Composition of Inner Layer of Cover (Parts by Weight) Ionomer Type — Blend Ratio Sodium- Surlyn 8940 — 75% Zinc- Surlyn 9910 — 25% (Proudfit (Ex. 5), col. 8, lines 22-30.) Surlyn® 8940 and Surlyn® 9910 are both low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid.
an outer cover layer disposed on	"FIG. 1 illustrates a two-piece golf ball 10 which

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Claim 1	**Proudfit and Molitor '751**
said inner cover layer,	includes a solid core 11 and a **cover 12 which comprises** a relatively hard inner layer 13 of one or more ionomer resins and **a relatively soft outer layer 14 of polymeric material.**" (Proudfit (Ex. 5), col. 7, lines 21-24.)
said outer cover layer having a thickness of 0.010 to 0.070 inches,	"The **thickness of the outer layer can be** within the range of about **0.0450 to 0.0650 inch** to provide a total ball diameter of 1.680 inch. The preferred dimensions are … an **outer layer thickness of 0.0525 inch**…." (Proudfit (Ex. 5), col. 7, lines 40-46.)
and said outer cover layer comprising a polyurethane material,	"… an **outer layer** of soft material such as balata or **a blend of balata and other elastomers**." (Proudfit (Ex. 5), col. 5, lines 15-17.) **Molitor '751:** "The preferred components of the cover material comprise a thermoplastic polyurethane . . . ." (Molitor '751 (Ex. 13), col. 3, lines 6-7.)
wherein said golf ball has an overall diameter of 1.680 inches or more,	"The preferred dimensions are a core diameter of 1.500 inch, and inner layer thickness of 0.037 inch (inner layer diameter of 1.575 inch), and an outer layer thickness of 0.0525 inch **(total ball diameter of 1.680 inch)**." (Proudfit (Ex. 5), col. 7, lines 43-47.)
said inner cover layer having a Shore D hardness of at least 60,	"The composition of the inner cover layer is described in Table 6." TABLE 6 Composition of Inner Layer of Cover (Parts by Weight) Ionomer Type — Blend Ratio Sodium- Surlyn 8940 — 75% Zinc- Surlyn 9910 — 25% (Proudfit (Ex. 5), col. 8, lines 22-30.) Surlyn® 8940 has a Shore D hardness of 65; Surlyn® 9910 has a Shore D hardness of 64. Surlyn® 8940 has a Shore D hardness of 66; Surlyn® 9910 has a Shore D hardness of 64 (CW 00512231 (Ex. 45).) Therefore, this cover blend has a hardness of 60 or more when measured off the ball, specifically 64.7. (*See* "Blend 2" described in AC 0131414 (Ex. 34).) "The inner layer can be molded in one of two methods: 1. **Injection molded** over the core in a manner which

<table>
<tr><th>Claim 1</th><th>Proudfit and Molitor ‘751</th></tr>
<tr><td></td><td>is conventionally used to injection mold ionomers over a solid core.
2. Injection mold halfshells, place halfshells over the core, compression mold the inner cover over the core.” (Proudfit (Ex. 5), col. 8, lines 32-38.) Therefore, this cover blend inherently has a hardness of 60 or more. (See also Decl. of Edmund A. Hebert (Ex. 25) at ¶¶ 8-9.)</td></tr>
<tr><td>and said outer cover layer having a Shore D hardness of less than 64.</td><td>“… an outer layer of soft material such as balata or a blend of balata and other elastomers.” (Proudfit (Ex. 5), col. 5, lines 15-17.) Balata has a Shore D hardness of less than 64. (See Decl. of Edmund A. Hebert (Ex. 25) at ¶ 7; Nesbitt Depo. Trans. (Ex. 16) at 121:2—121:5.).

The Wilson Ultra Tour Balata Ball, which is made according to the Proudfit patent (See CW 0302942-47 (Ex. 47) has a Shore D hardness of less than 64 when measured on the ball. (See AC 0131413 (Ex. 34).)
<u>Molitor ‘751:</u>
<u>ON THE BALL</u>
Molitor ‘751 discloses the following blend as the most preferred (Ex. 13, col. 7, line 25, Table):
<table><tr><th>Material</th><th>Parts</th></tr><tr><td>Texin 480 AR (now 285)</td><td>90</td></tr><tr><td>Surlyn 1605 (now 8940)</td><td>10</td></tr><tr><td>TiO2</td><td>5</td></tr><tr><td>Fluorescent Brightener</td><td>0.10</td></tr><tr><td>Antioxidant</td><td>0.17</td></tr><tr><td>Pigment</td><td>0.02</td></tr><tr><td>Release Agent</td><td>1</td></tr></table>When measured on Proudfit’s ball, this cover has a Shore D hardness of hardness of 49.6. (MacKnight Decl. (Ex. 30) at ¶ 33).
<u>OFF THE BALL</u></td></tr>
</table>

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Claim 1	**Proudfit and Molitor '751**
	When measured off the ball, this formulation had a Shore D hardness of **39.5** (*See* "Texin Blend" average Shore D hardness at AC 0131414 (Ex. 34).)

Claim 3	**Proudfit and Molitor '751**
A multi-layer golf ball comprising:	"This **invention relates to golf balls**, and more particularly, to a golf ball having a **two-layer cover**." (Proudfit (Ex. 5), col. 1, lines 11-12.)
a spherical core;	"FIG. 1 illustrates a two-piece golf ball 10 which includes a **solid core 11** and a cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins and a relatively soft outer layer 14 of polymeric material." (Proudfit (Ex. 5), col. 7, lines 21-24; FIGS 1, 2.) "Two specific **solid core compositions** used with the new two-layer cover had the composition described in Table 1. **One core** was used in a golf ball which was designated as a 90 compression ball, and **the other core** was used in a golf ball which was designated as a 100 compression ball." (Proudfit (Ex. 5), col. 7, lines 51-55.)
an inner cover layer having Shore D hardness of at least 60 disposed on said spherical core,	"The composition of the inner cover layer is described in Table 6." **TABLE 6** Composition of Inner Layer of Cover (Parts by Weight) Ionomer Type — Blend Ratio Sodium- Surlyn 8940 — 75% Zinc- Surlyn 9910 — 25% (col. 8, lines 22-30.) Surlyn® 8940 has a Shore D hardness of 66; Surlyn® 9910 has a Shore D hardness of 64 (CW 00512231 (Ex. 45).) Therefore, this cover blend has a hardness of 60 or more when measured off the ball, specifically 64.7. (*See* "Blend 2" described in AC 0131414 (Ex. 34).) Therefore, this cover blend inherently has a hardness of 60 or more. (*See also* Decl. of Edmund A. Hebert (Ex. 25) at ¶¶ 8-9.) "The inner layer can be molded in one of two

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Claim 3	Proudfit and Molitor '751
	methods: 1. **Injection molded** over the core in a manner which is conventionally used to injection mold ionomers over a solid core. 2. Injection mold halfshells, place halfshells over the core, **compression mold the inner cover over the core**." (Proudfit (Ex. 5), col. 8, lines 32-38.)
said inner cover layer comprising an ionomeric resin including no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid	"The composition of the inner cover layer is described in Table 6." TABLE 6 Composition of Inner Layer of Cover (Parts by Weight) Ionomer Type — Blend Ratio Sodium- Surlyn 8940 — 75% Zinc- Surlyn 9910 — 25% (col. 8, lines 22-30.) Surlyn® 8940 and Surlyn® 9910 are both low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid. (*See* '293 patent (Ex. 1), col. 8, lines 20-27.)
and having a modulus of from about 15,000 to about 70,000 psi; and	"The **standard resins have a flexural modulus in the range of about 30,000 to about 55,000 psi** as measured by ATM Method D-790. (Standard resins are referred to as "hard Surlyns" in U.S. Patent No. 4,884,814.)" (Proudfit (Ex. 5), col. 5, line 66-col. 6, line 1.) "Specific **standard Surlyn resins** which can be used in the **inner layer include 8940 (sodium), 9910 (zinc)** …." (Proudfit (Ex. 5), col. 6, lines 6-7.) "The **composition of the inner cover layer** is described in Table 6." TABLE 6 Composition of Inner Layer of Cover (Parts by Weight) Ionomer Type — Blend Ratio Sodium- Surlyn 8940 — 75% Zinc- Surlyn 9910 — 25% (Proudfit (Ex. 5), col. 8, lines 22-30.) Surlyn 8940 has a flexural modulus of **51,000 psi** (CW 00512231 (Ex. 45), while Surlyn 9910 has a flexural modulus of **48,000 psi** (*Id.*)
an outer cover layer having a	"… an **outer layer of soft material** such as balata or a

<table>
<tr><th>Claim 3</th><th>Proudfit and Molitor ‘751</th></tr>
<tr><td>Shore D hardness of about 64 or less disposed about said inner cover layer and defining a plurality of dimples to form a multi-layer golf ball,</td><td>blend of balata and other elastomers.” (Proudfit (Ex. 5), col. 5, lines 15-17.) Balata has a Shore D hardness of less than 64. (See Decl. of Edmund A. Hebert (Ex. 25) at ¶ 7; Nesbitt Depo. Trans. (Ex. 16) at 121:2—121:5.).

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<u>Molitor ‘751:</u>
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Molitor ‘751 discloses the following blend as the most preferred (Ex. 13, col. 7, line 25, Table):
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<u>OFF THE BALL</u>
When measured off the ball, this formulation had a Shore D hardness of 39.5 (See “Texin Blend” average Shore D hardness at AC 0131414 (Ex. 34).)

[Proudfit, (Ex. 5)Fig. 1 shows a plurality of dimples]</td></tr>
</table>

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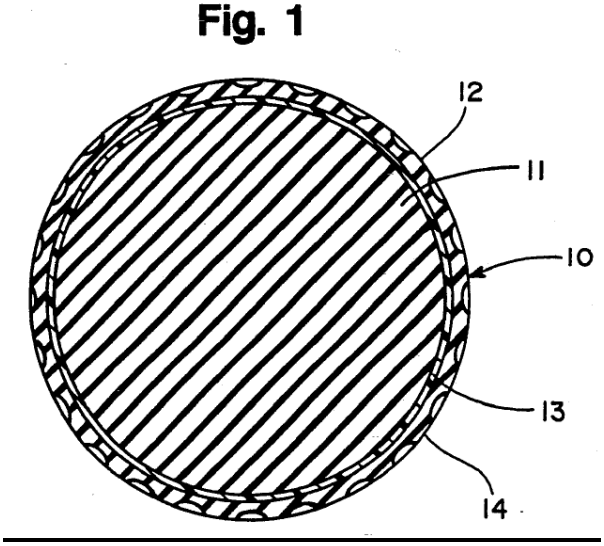
Claim 3	**Proudfit and Molitor '751**
	
said outer cover layer comprising a polyurethane based material and	"… an **outer layer** of soft material such as **balata or a blend of balata and other elastomers**." (Proudfit (Ex. 5), col. 5, lines 15-17.) **Molitor '751:** "The preferred components of the cover material comprise a thermoplastic polyurethane . . . ." (Molitor '751 (Ex. 13), col. 3, lines 6-7.)
said outer cover layer having a thickness of from about 0.010 to about 0.070 inches.	"The **thickness of the outer layer can be** within the range of about **0.0450 to 0.0650 inch** to provide a total ball diameter of 1.680 inch. The preferred dimensions are … an **outer layer thickness of 0.0525 inch**…." (Proudfit (Ex. 5), col. 7, lines 40-46.)